Teacher Education

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TEACHER EDUCATION

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Mathematics is the gate and key of the sciences . . . Neglect of mathematics works injury to all knowledge, since he who is ignorant of it cannot know the other sciences or the things of this world. And what is worse, men who are thus ignorant are unable to perceive their own ignorance and do not seek a remedy.—ROGER BACON.

Opus Majus, Part D, *Distinctia Prima, cap.* V.

Functions of a Department of Mathematics in a Teachers College

C. N. MILLS*

The term *Teachers College* implies as its main function the training of teachers for the elementary and the secondary schools. However, in this training other values are evident in a well balanced program of instruction. These respective values depend on what is meant by the word teacher. It seems logical to consider service as the main outcome of teacher college training. If this interpretation is valid, then it is very difficult to single out any one outstanding function as the main objective of teacher training. Accepting service as the guiding goal, the department of mathematics at Illinois State Normal University attempts to orientate its curriculum and teaching procedures in four very definitely related fields of training:

1. The training of teachers of elementary mathematics
2. The training of teachers of secondary mathematics
3. The training of students in basic mathematics in order that they can continue their study in any of the applied sciences
4. The training of students in mathematics analysis in order that they can continue graduate study in pure mathematics or in the applied sciences

When Illinois State Normal University was established, the training of teachers of arithmetic represented an important function of the school. The interest and activities of President Hewitt in this connection are well shown in his publications, which were widely used in the United States. The

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work of DeGarmo and the McMurrays with the special methods of instruction in arithmetic also gave much prominence to the subject here. Later President Cook, and then President Felmley continued to emphasize the training of teachers of arithmetic as an important part of the college program. Throughout all these years, the value of arithmetic in the elementary school curriculum was given proper emphasis.

In 1905, the curriculum for the training of teachers of mathematics in the secondary school was introduced. Professional courses in the teaching of algebra and geometry were given to meet the demand for better trained teachers of high school mathematics. Students taking these courses were required to do student teaching under supervision in the University High School. Based on the recommendations of standardizing agencies and professional organizations, academic courses comparable to the liberal arts courses were gradually introduced into this specialized training. Today, Illinois State Normal University offers a well-balanced program for the training of teachers of secondary mathematics.

Because many graduates from the department desire to continue their study in pure and applied mathematics, several courses have been introduced to meet their needs. The success of the students who have taken up graduate work gives evidence that the offering of such advanced courses has been desirable. These students need training in mathematical analysis in order that they may become better teachers of mathematics or that the results of their graduate study may be properly called research.

Mathematics in General Education

C. N. Mills

The Purpose of General Education

Before one can state what role any specific field of study has in the educational program, it is necessary to know just what the purpose of general education should be. This purpose is well stated as follows:

> The purpose of general education is to provide rich and significant experiences in the major aspects of living, so directed as to promote the fullest possible realization of personal potentialities and the most effective participation in a democratic society.[1]

Democratic society is made possible only through the behavior of the individual in a society existing in a physical universe. The needs of any individual are determined by his desire to adjust himself to society at large. The term *needs* as used here refers to a wide range of specific needs, which may be classified under four main headings:

1. Personal interests and living
2. Personal-social relationships

[1] Mathematics in General Education: A Report of the Commission on Secondary School Curriculum, New York, 1940, p. 43.

3. Social-civic relationships
4. Economic relationships

These four general needs provide convenient centers of reference for pointing out desirable interests and needs for valuable learning experiences. The writer has no intention of discussing the merits of these general needs, but is willing to accept them in view of the general agreement of leaders in educational activities today.

Special Educational Needs for Individual Growth

The growth of any individual is governed by his ability to develop skills, to acquire knowledge, and to develop interests and attitudes. Here, growth is interpreted as behavior.

Much can be said on the topic of developing skills and making use of them in needed situations. The writer has the firm belief that certain skills and knowledge are essential for complete understanding and total adjustment in solving new problems. The ability to think clearly and logically is one attribute of a well adjusted individual. The value of an individual who acquires knowledge and knows how to use this knowledge is well expressed in an old Greek adage. It reads as follows:

Man is four;

He that knows not and knows not that he knows not, is a fool; avoid him.

He that knows not and knows that he knows not, is simple; teach him.

He that knows and knows not that he knows, is asleep; awake him.

He that knows and knows that he knows, is wise; follow him.

The acquisition of skills and knowledge leads to the development of interests, attitudes, and appreciations. It is at this stage of learning experiences that a real teacher can justify his power. The development of a real teacher of mathematics is the objective of the mathematics department at Illinois State Normal University.

There is much evidence to indicate a decreasing interest in elementary and secondary mathematics, especially among certain groups of educational leaders. Much of the criticism has been centered upon the subject matter, but little attention has been given to the real cause of this situation. The strongest criticism should center around the so-called teacher placed in charge of the mathematics instruction. With the dominant attitude that any person possessing two hands and two feet can teach mathematics, as evidenced by the suggestion of many school administrators, it is not surprising that mathematics has been looked upon from an ineffective point of view. If there should be an extra class in arithmetic, algebra, or geometry, that class is generally assigned to any teacher in order that this person might have full-time employment. With this type of teacher it is only natural that the students become dissatisfied and soon voice the idea "we don't like mathematics." It is true that under this type of teacher the line of least resistance can be followed, and as a result the pupils often say, "He is a wonderful teacher." However, in later years, when a real test of achievement is desired, the same pupils say, "My! What I could do if that teacher had given me wheat instead of chaff."

In order that achievement be realized in any field of study, reflective thinking is necessary. The power evidenced by reflective thinking can be attained only through training in basic skills and logically organized knowledge. The members of the faculty of the department of mathematics are not thinking of the doctrine of formal discipline when they are emphasizing reflective thinking but of a much broader aspect of educational values.

Mathematics as a Contribution to the Purpose of General Education

No one doubts the statement that any field of study deserves a place in a school curriculum only in so far as it has a unique role to play in meeting the educational needs of the students. The guiding principle, means, then, that mathematics is only one of the many golden threads of the anchoring rope of democratic security. Mathematics has its interconnections with many fields of study in a well-balanced curriculum.

Too many persons have thought of mathematics as that field of study concerned only with pure symbolism and a few of the applied sciences that deal with facts and relationships of quantitative data. One cannot mention a field of study in which training in mathematics is not essential. Hence, it is the duty of a real teacher to develop in students a realization that mathematics contributes to the social bearings and imports of their activities. Mathematics is a field of study where one makes contact with persons, groups of persons, and institutions in order to further the progress of human knowledge or solve social problems. It is evident, then, that a real teacher knowingly or unknowingly calls attention to the importance of mathematics in contemporary culture.

From the preceding statements one might infer that the department is interested in mathematics only as a *tool* subject. This conclusion would not be valid, however, as mathematics plays an important role in developing personality, which is one of the objectives of the educational program. Only a few of the specific objectives leading to the development of personality need be mentioned at this time: social sensitivity, cooperativeness, self-direction, aesthetic appreciation, tolerance, and creativeness. These objectives are discussed in relation to the training of teachers of the elementary and secondary mathematics. When the teacher keeps in mind these objectives, one is assured that a richer and more effective personality results.

Mathematics and Civilization

The real teacher of mathematics will develop in his students a perspective on the relation of mathematics to the civilizations in which it has played its part throughout the ages. He may also emphasize the character of the development of mathematics as a science. It is here that the history of mathematics gives the student an appreciation of the fact that this science is one of the main instrumentalities by which man has created for himself the kind of world in which he now lives. Insight into the historical aspects of mathematics aids in giving the subject new life and light.

Some Objectives in the Professional Preparation of High School Teachers of Mathematics

EDITH I. ATKIN *

In a discussion of the general preparation of high school teachers of mathematics, the first question that naturally arises is "How shall the future teacher be selected?" In this paper, it will be assumed that the high school senior looking forward to teaching mathematics has good health, sterling character, sincerity, sympathy, and a sense of humor, that he shows desirable grooming and taste in dress, and that he has those pleasing personal qualities so essential to a teacher's success. It is further assumed that he has a creditable record in his high school work, especially in mathematics, and that he is eager to teach.

The college work of the prospective teacher of mathematics should include a well-rounded program of studies in the liberal arts, in psychology, and in education. In mathematics, as a minimum requirement he pursues courses through calculus and modern geometry. He also takes professional mathematical courses especially directed toward his needs as a future teacher of mathematics, and has a semester of teaching high school mathematics under supervision. In addition, it is recommended that his college course should include a year or more in some field closely related to mathematics, such as the physical sciences or financial mathematics.[1] Superior teaching in the high school can come only from superior teaching in the college. If the student is to be properly oriented toward his career as a real mathematics teacher, his college teachers must be men or women of scholarship and vision who have had high school experience. They should teach the college courses so as to secure interest, understanding, and mastery, with emphasis on both the pure and applied phases.

For years the writer has taught to juniors and seniors in Illinois State Normal University three professional courses, which are planned especially for those students who are preparing to teach mathematics in the junior or senior high schools. These courses are the History of Mathematics, Junior High School Mathematics, and Senior High School Mathematics. The main

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[1] "Report on the Training of Teachers of Mathematics," **The American Mathematical Monthly**, Vol. 42 (1935), pp. 263-277, 472-476.

"The Place of Mathematics in Secondary Education," **Fifteenth Yearbook of the National Council of Teachers of Mathematics**, 1940, pp. 187-203.

I. S. Turner, "The Training of Mathematics Teachers," **Fourteenth Yearbook of the National Council of Teachers of Mathematics**, 1939.

objectives of these courses will be discussed under seven heads.

To foster a liking for mathematics

The real teacher of mathematics enjoys the subject both for its own sake and for its applications. To him the working of a difficult problem is as absorbing as any game. Whether the problem is of a puzzle or recreational type, or a practical problem from industry or the scientific field, he finds it intensely intriguing and keeps his attention upon it until a solution is found. Mathematics has for him the aesthetic satisfactions found in music, art, and poetry. For a person who does not see and feel these things the attempt to teach the subject is a crime. His students are crippled, and the path to the heights of mathematical achievement and enjoyment is closed to them.

To give the student an awareness of the mathematics in his environment

The real teacher of mathematics is mathematically conscious. He looks at textiles, as well as linoleum patterns and tiling, and sees the mathematical principles underlying the interesting designs; he looks at an automobile headlight, the path of a projectile, or a solar engine, and thinks parabola and quadratic equation; he watches an eclipse of the sun, and recalls the properties of the ellipse and the immense amount of calculation which made possible the prediction of the eclipse at an exact time; he turns on his radio and thinks that there is more use for differential equations in this instrument than there is for wire; he examines his insurance policy and remembers the theory of probability. The skyscraper, the battleship, the airplane, the suspension bridge,—all speak to him in mathematical language. The real teacher of mathematics agrees with that teacher who wrote, "Were its background of mathematics removed, our material civilization would inevitably collapse."

Without this viewpoint the high school teacher cannot sell mathematics to his pupils. He must be able to answer the criticism that it is useless to study high school and college mathematics because "the average citizen has no use for the stuff; he never needs to solve problems." The teacher should spread the gospel that it is mathematics that has made possible the advanced civilization in which this citizen lives, and that somebody has solved the problems. If tomorrow's problems involving mathematics are to be solved, students must start their training in mathematics today.[2]

What many do not realize is that mathematics also has vital connections with art, music, poetry and religion. Some of the greatest teachers of mathematics have written beautifully and convincingly of the relations of mathematics to these fields. In an essay, "Religio Mathematica," David Eugene Smith, professor emeritus of mathematics Columbia University, writes

> that mathematics increases the faith of a man who has faith; that it shows him his finite nature with respect to the Infinite; that it puts him in touch with immortality in

[2] "A Source Book of Mathematical Applications," **Seventeenth Year Book of the National Council of Teachers of Mathematics,** New York, 1942

the form of mathematical laws which are eternal; and that it shows him the futility of setting up his childish arrogance of disbelief in things he cannot see.[3]

To acquaint the prospective teacher with the development of mathematics

The real mathematics teacher knows the fascinating story of how man learned to count and to write numbers, the early methods of computation with Hindu-Arabic numerals, the story of weights and measures, and the history of how intuitive geometry and trigonometry arose. He should recognize these as examples of mathematics that have grown out of practical needs. He should know that other subjects in mathematics have been inspired by science. But it is interesting and challenging for him to know that much of mathematics was created to gratify man's love of searching for truth. Such was the motive that inspired Apollonius in 250 B.C. to produce his classic work of *The Conic Sections,* in which he gave to posterity many of the properties of the ellipse, the parabola and the hyperbola. It was not until eighteen centuries later that Kepler gave to the world his law that the planets move around the sun in elliptical orbits with the sun at one of the foci of the ellipse. As early as 275 A.D., mathematicians puzzled about those equations whose roots are the mysterious square roots of negative one; now this so-called imaginary number plays a most important part in the practical study of electrical currents.

Number theory, pursued for twenty-five hundred years only for esthetic satisfactions and joy, is now used in splicing telephone cables. The discoveries of today growing out of curiosity may be needed for practical purposes tomorrow or a thousand years hence.

The real mathematics teacher knows the extent of the growth. In 1931, Professor Bell of the California Institute of Technology wrote that

> If mathematical physics be annexed as a province of mathematics, a detailed professional mastery of the whole domain of modern mathematics would demand the life-long toil of twenty or more richly gifted men.[4]

Because it is futile to report the findings of mathematical research in the press, the public knows very little of this remarkable expansion. He who would understand any new development in mathematics must begin at the bottom and work up. Professor Carmichael of the University of Illinois observes in this connection:

> Mathematics is relatively further advanced than any other subject. It requires the learner longer in mathematics than in other sciences to attain an elevation from which he may enjoy the prospect of unexplored territory.[5]

The last one hundred and fifty years have been called the Golden Age of

[3] David Eugene Smith, **The Poetry of Mathematics and other Essays,** New York, 1934, p. 47.

[4] E. T. Bell, **The Queen of the Sciences,** Baltimore, 1931, p. 5.

[5] R. D. Carmichael, **The Logic of Discovery,** Chicago, 1930, p. 252.

mathematics. The volume of mathematics published since 1800 far exceeds the total mathematical output of all previous time. In the last decade or two, the United States has become the center of this research. Whole new fields have been developed, existing subjects have been extended, and rigid research has been done on the logical foundations on which all mathematics rests. Barring cataclysmic changes in world conditions, Professor Moulton of Northwestern University predicts a very bright future for the advance of mathematics.[6]

Another important outcome of the course in the history of mathematics is the creating of a background for the teacher's appreciation of his pupils' difficulties in understanding certain topics. Are fractions hard for the pupil? For centuries the world tried to avoid fractions by the use of submultiples of the unit as in pounds and ounces. Are negative numbers difficult? For hundreds of years mathematicians did not recognize them as roots of an equation and called them fictitious numbers. Is abstract algebra hard for the beginner? The present symbolic algebra is the outgrowth of the struggle for centuries through rhetorical and syncopated forms.

A knowledge of the history of mathematics gives the teacher a background from which to judge high school mathematics courses of today. For example, what verbal problems in current arithmetic and algebra textbooks have ceased to meet the need for which they were originally created and should be eliminated in favor of problem material satisfying present demands? A knowledge of the history of mathematics gives the teacher a rich storehouse from which he can draw material for enriching his courses, as well as supplementary work for his brighter pupils and for mathematics clubs. Adding by counters, the lattice method of multiplication, the scratch method of division, the story of weights and measures, recreational and puzzle problems are suggestive topics.

To strengthen and deepen his knowledge and appreciation of the subjects he may have to teach and to provide him with techniques of presentation and ways of overcoming difficulties.

Throughout the discussion of every basic topic in the mathematics courses for junior and senior high school students, meanings and mastery are stressed. In intuitive geometry and mensuration, the instructor carries out in her own presentation the methods which a student can adapt to his classes when he teaches the subject. The student learns about the shape, size, and position of objects. He sees nature as the source of geometric form, and becomes conscious of geometric forms in the things that man makes. He arrives at theorems and formulas experimentally, and shows the work on sheets, which he can later use in his own class room. In percentage, recognition is made of the twofold aspect: the informational and the computational. The work is kept close to life situations through the use of source

[6] E. J. Moulton, "The Future of Mathematics," School Science and Mathematics, Vol. 36, pp. 124-128.

materials. The prospective teacher becomes acquainted with budgeting, banking procedures, rates of interest in installment buying, and investments such as bonds, building and loan association shares, and insurance. His study furnishes him not only the background for teaching corresponding courses, but gives him also a certain feeling of assurance in planning his own financial program. In this course, the student starts his collection of advertisements which mention per cents, of source material such as checks, receipts, cancelled insurance policies, and also pictures showing geometric forms.

In algebra the chief topics that are stressed are the equation, the formula, the graph, the growth of the number system, verbal problems, and variation. For instance in his study of equations, the future teacher should learn how to distinguish between an equation and an identity, for what degree equations it is possible to have algebraic formulas to use in solving them, when a root of an equation is extraneous, how many pairs of roots to expect from a system of equations involving the same two unknowns, and what types of these systems are solvable by high school algebra.

In demonstrative geometry, certain important aims stand out: to teach the meaning of proof, to present geometry as a pattern for correct thinking, to study methods of attacking original exercises and construction problems, to discuss indirect proof and loci, to recognize and appreciate the principles of continuity and duality, and to study some of the outstanding practical applications of the theorems.

To produce teachers who think well and who express their thoughts correctly

The real teacher of mathematics realizes the contribution that mathematics should make to straight thinking in all areas of thought, and knows that the amount of transfer shown by his students depends on the teacher's method of teaching. Demonstrative geometry is the subject in which the parallelism between clear thinking in mathematics and clear thinking in other fields can be best emphasized. Much of the thinking of the present day is notoriously faulty. It seems often as if newspapers, politicians, salesmen, and advertisers deliberately set out to lead a non-suspecting public away from the truth. Often those who think they are honest in their conclusions are following very superficial thinking habits. What has geometry to contribute to adequate thinking? Mathematics teachers believe that geometry furnishes a pattern for correct thinking and that its chief contribution to education is its implementation of thinking. In this connection, the student should read Fawcett's *Nature of Proof*.[7]

One fault in thinking arises from failure to define terms. People talk glibly about the evils of facism, nazism, communism, and socialism without having in mind any clear definition of the terms. Geometry demands clear definition of terms before one may start a discussion. Of prime signif-

[7] Harold E. Fawcett, New York, 1938.

icance is the ability to pick out from the article the key words, which must be defined if the article is to be understood, and then to find the definitions.

Another difficulty with a vast amount of thinking rests on the fact that the thinker does not take the trouble to lay down the postulates underlying his discussion. Very likely he is not aware that there are any such basic ideas which furnish the foundation for his thinking. The mathematician today defines a postulate as a statement assumed to be true without proof. Mathematics supplied the first great example of postulational thinking in Euclid's *Elements,* written about 300 B.C. Euclid defined certain terms and took certain statements as true, and upon this foundation built a superstructure of proved propositions. The prospective teacher should realize that Euclid's subject matter was mathematics, but that his method was general. He should also know the story of the rise of the Non-Euclidean geometries and their significance, and realize that the Euclidean geometry he expects to teach is as true as the postulates on which it is based. He should have practice in detecting the postulates used in arriving at the conclusions in many pieces of reasoning.

Other errors in reasoning come from reasoning in a circle, failing to consider all the possibilities involved, assuming that the converse of a theorem is always true, assuming that the opposite of a theorem is always true, or assuming that what is true of a particular figure of a class is true of all figures of that class. Mistakes of these types, which so often occur in geometry, should be corrected. Analogous errors in reasoning in other fields should be pointed out.

Relational or functional thinking, so important in everyday thinking, is encountered in the study of the formula, the graph, and the equation, in geometrical relationships, and in problem solving. Life is permeated with situations that call for correct relational thinking, and mathematics classes afford an excellent opportunity for stimulating attention to the correspondence between relational thinking in mathematical and non-mathematical areas.

If a student thinks clearly, he should be able to state his thoughts in clear, precise English, or in correct mathematical symbolism. In speaking of the contribution that mathematics may make to correct English, the late Dr. J. Rose Colby, for years the head of the Department of English in this University said:

> In mathematics we are dealing with concepts and relations that make in all probability our nearest approach to absolute truth. To mathematics, therefore, we are wont to look for the severest training in exact thinking. But exact thinking is practically impossible without exactness in the use of terms and logical precision in the ordering of our thoughts. And it is training in the exactness in the use of terms, this orderly and logical movement from thought to thought that constitutes the peculiar service of mathematics to language training.

The teacher of mathematics who fails to demand and secure these things, who fails to develop in his pupils a conscience in the use of words, a scrupulous niceness in the basing of conclusions on premises has missed the best part of his business. A student no more needs a knowledge of mathematical facts in, say, physics, than he needs in many subjects this habitual precision of phrase and this logic in reasoning.[8]

To make the future teacher acquainted with desirable equipment for his class room, with text books, with library books, and with other supplementary helps

The teachers' courses of the prospective teacher should make him acquainted with needed material and with sources where it may be procured. Too often the mathematics teacher through lack of knowledge, lets the science, the social science, and the English departments in a system use up all the money available for supplies. The teacher should also learn the outstanding recognized characteristics of desirable text books and effective standardized tests by the examination of texts and the taking of tests.

To promote a professional attitude and a desire for professional growth

If the teachers' courses fail to promote a professional attitude and a desire for professional growth, they have failed in a most significant phase in the initial preparation of the teacher. Teachers' courses at their best are only beginnings in a teachers' preparation. The world is changing, even as high school enrollments and curriculums are changing. The mathematics teacher should keep abreast of these changes. Subscribing to mathematical journals and reading them,[9] joining mathematical organizations, and attending mathematical conferences are necessities in promoting his growth while in service. Summer session study and a year off for securing an advanced degree will stimulate his growth in interest and in power, and challenge him to be a leader in giving to mathematics in the junior and in the senior high school the place that it deserves. In large measure the responsibility for this leadership on the part of mathematics teachers depends upon the example of their college teachers. May we be equal to the task!

[8] "English in the School," **Educational Bi-Monthly**, Vol. 3, pp. 6-7.

[9] **The Mathematics Teacher** (Official journal of the National Council of Teachers of Mathematics), 525 West 120th Street, New York City.

School Science and Mathematics (Official journal of the Central Association of Science and Mathematics Teachers), Ray C. Soliday, Business Manager, P. O. Box 408, Oak Park, Illinois.

The Mathematics Program in the High School

HENRY A. POPPEN*

In the training school of a teacher-training institution the function of a department is, of necessity, two-fold. There is a responsibility toward the pupils who make up the student body of the high school and a responsibility toward the university students who are being trained in the art of teaching. Placing the major emphasis upon pupil welfare will result in well trained university students. Reversing the emphasis would almost certainly assure undesirable results in both areas.

One responsibility of education has been underemphasized in America in recent years. Sufficient consideration has not been given to the propagation of subject matter in certain broad fields of knowledge. Emphasis has been placed upon narrow concepts of pupil welfare rather than upon the welfare of all society. It is clear that a curriculum based upon adult concepts of pupil needs is a necessary but not a sufficient curriculum to insure a population of individuals capable of progress. Adult concepts of pupil needs are likely to be influenced by the present needs of adults instead of the future needs of the pupils. These needs of the pupils can best be met if the youth of the present are trained to capacity in each of certain well defined basic subject matter areas. Specialization should be undertaken only when an individual is well schooled in the basic techniques.

The history of the development of mathematics indicates, in many instances, that the need for a particular technique was not felt until long after is was fully developed. For example, the algebra of matrices, developed as an interesting and fascinating theory many years ago, has only recently been adapted to the solution of educational and psychological problems. It seems necessary, therefore, that in curriculum building, provision be made to assist individuals to become capable of developing mathematical theory in order to take care of unanticipated needs.

Because of the cumulative nature of mathematics, it must be offered in sequential form rather than in isolated units. In the University High School no mathematics is required for graduation. Pupils with sufficient capacity for success are encouraged, however, to enroll in mathematics courses. The regular curriculum consists of sequential courses in algebra, plane and solid geometry, and trigonometry. A special program is provided for those pupils who, on the basis of prognostic tests, grade school records, interests, and desires are not sufficiently mature in mathematical skills and understandings to profit from instruction in the regular curriculum. For these individuals, a semester course called Introduction to

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Mathematics is offered, in which the fundamental skills of arithmetic are recalled. The course provides a gradual transition from arithmetic to the more abstract processes of algebra, and is designed to provide meaningful experiences in quantitative situations. For some students, this training provides a terminal course in mathematics, and for others, a foundation for future courses.

For those students selected as previously indicated and those who succeed in the Introduction to Mathematics, the regular sequence of mathematics is provided. Fundamental skills and understandings of mathematics are emphasized throughout this curriculum. The techniques of problem solving form the major aim of courses in mathematics in the University High School. That problem solving is the desired aim is made clear to the students. An understanding of the relationship between variables and of the nature of inductive, deductive, and reflective thinking is also a desirable aim of instruction. Particular aims which contribute to the development of these skills and understandings are outlined and evaluated frequently.

At the present critical time, a special course in Emergency Mathematics is offered to those students who have not selected any mathematics in high school. Certain topics of mathematics related to aeronautics in particular are discussed. This course provides a background for those individuals who hope to make their contribution to the emergency in specialized fields in which certain aspects of mathematics are essential.

There is danger in the wholesale development of *emergency* courses in mathematics, and in the trend toward emphasis upon mathematics since 1940. There has always been a need for mathematics in the social system, although prior to 1940 the swing had been away from the recognition of its importance in the curriculum. The main difficulty has been in the teaching of mathematics and not with the subject itself. This hasty revival of its importance is likely to have an undesirable effect on mathematics education. Unprepared teachers are going to teach it badly. Soon it will be discovered that the graduates of the schools know little mathematics. As a result of frequent criticism, there may again be a reversion to the false reasoning that, since little mathematics has been learned, less needs to be taught.

In order to insure increased skill and growth in instructional procedures, the teacher of mathematics must analyze carefully the objectives before planning any program of instruction. These objectives should be judged in the light of the knowledge possessed concerning their contributions toward the attainment of desirable skills, understandings, and attitudes. The methods of attaining these must then be carefully considered. The selection of objectives is a function of the teacher of mathematics, who is sufficiently proficient in mathematical knowledge and who is aware of possible adult needs of the students. The methods of instruction must be selected by the teacher, who has an understanding of educational and psychological principles of learn-

ing. An appreciation of the difficulties pupils encounter in mathematics is also a necessary attribute of a teacher. This appreciation may be gained as a result of some retrospect in connection with his own mathematical training experiences. The anticipation of pupil difficulties is a matter gained only through experience in teaching.

The measurement of the attainment of objectives is likewise an important problem confronting the mathematics teacher. It must be recognized that *skills* can be measured easily by objective tests but that *problem solving* is a highly involved process and cannot be measured by such simple methods. Serious consideration should be given to the matter of measurement of true objectives of mathematics. How else can it be ascertained that the pupils are capable of using these skills in problem solving situations likely to be met in adult experiences? The use of standard tests for the purpose of comparing a group of students with national norms is desirable, provided the aims of the group are compatible with those with whom they are b e i n g compared.

In all instruction the responsibility of learning must remain that of the student. He must be motivated through the use of material which is interesting and challenging and by making clear to him the larger aims of education and the contribution of mathematics to these larger aims.

The amount of work a student does is not necessarily a valid criteron of understanding. A large amount of work probably insures skill, at least for the present, in some detail of mathematics, but is no guarantee of understanding or even of permanent skill in that detail. Practice in these detailed skills is necessary but not sufficient to insure real understanding of mathematical principles. Teachers need to be aware of the fact that an understanding of these principles is as important as the skills themselves.

The most important consideration for sound educational practices in the schoolroom is a well prepared teacher. Particularly in a training school where the supervising teacher has a responsibility toward the development of teachers should the teacher be prepared both in subject matter and in methods of instruction. Unfortunately, in some instances, supervisors actually have less training in mathematics than the student teachers they supervise. Scholarship is by no means the sole requirement of a superivsor. He needs an understanding of people, particularly of boys and girls, a flexible philosophy of education, and a knowledge of the manner in which the material his students learn contributes to the total educational program. It is desirable that a supervisor be associated with national and state associations in order to be familar with trends in modern educational thought in his field.

There are a few attributes of university students which the teacher training process attempts to develop; the other desired qualities must be assumed to be satisfactory at the beginning of the period. During this period, there may be some learning of subject matter and some development in the matter of

interest in mathematics. However, the major development must be and will remain *skill in instruction* and *gaining familiarity with educational problems.*

One of the criticisms frequently hurled at American education is that educators are inclined to be satisfied with mediocre performances. This criticism is seldom justified if the teacher knows his subject well and is aware of its importance in the lives of his pupils. A committee on teacher qualification reports:

> Let the mathematics be taught by persons who know mathematics, not alone in the technical sense but in the sense of concrete, sensible practicable application.[1]

Knowing too much mathematics to be able to teach it may be a valid criticism in some instances, but it is surely easier for a supervisor with too much mathematics to assist a student to become an efficient teacher than one whose knowledge of mathematics is limited.

For the particular purpose of measuring attainment of objectives, the teacher should be familiar with the best testing techniques. Public school teachers, particularly mathematics teachers, should be familiar with methods of constructing objective tests and analyzing the data. This knowledge includes more than superficial awareness of the formulas for the mean and standard deviation of a distribution.

In order to achieve skill in instruction, the teacher in training must be given responsibility in the class room. It is necessary that he be given opportunity to evaluate objectives of subject matter provided for the student. In this regard it is desirable that he become familiar with the best of modern thought as outlined in professional books as well as in text books provided. The consideration of objectives must be more than the practice frequently used in following the outline of a single text. To attain the objectives of a particular area, the teacher in training needs guidance. This guidance is again a matter of careful direction by a competent supervisor, who can aid in the interpretation of techniques suggested in professional books.

The teacher in training also needs practice in the construction of instruments designed to measure the stated or implied objectives. The ability to use statistical methods to evaluate test items as measuring instruments should be an attribute of the real teacher. During the teacher training period the student becomes cognizant of many real educational problems. Before this experience, these problems existed only in educational textbooks and in the minds of professors of education. It becomes the responsibility of the supervisor to assist the apprentice teacher in the recognition of these problems and in methods of solution. The teacher in training must be made to realize that high standards of achievement must be and remain one of the foremost goals of education. Social progress is possible only in a society whose members are trained to capacity in the various broad fields of knowledge.

[1] V. S. Mallory, "Essential Mathematics for Minimum Army Needs," **The Mathematics Teacher,** October, 1943.

Arithmetic, The Foundation of Mathematics

ELINOR B. FLAGG*

It is indeed a trite statement to say that mathematics is important in the present war situation. The military forces would be in a sad predicament without the innumerable uses to which arithmetic is applied daily, even hourly. Formulas, measurements, comparisons of quantities, counting—these mathematical ideas are fundamental to the happiness and well-being not only of military men and women, but also of the vast civilian population. Some of the applications and theories back of them are understood only by the highly trained mathematician, but the elementary concepts and operations are used by everyone from the pre-school child who is learning that *one half* means one of two equal quantities to the youth learning to fly airplanes and determine range of large guns, and the highest ranking governmental and military officials. Once these specialists and technicians were in classes in elementary arithmetic; once they mastered the concepts of counting, addition, subtraction, multiplication, and division.

When military officials began examining the youth of the nation in order that these men might be classified for the training for which they were best adapted, results of tests showed very inadequate background in the arithmetic everyone would be expected to know. Previous tests and experiments by mathematicians and educators had shown the same outcome. For the past twenty years, there has been a slow but steady degeneration in the arithmetic achievements of children in schools all over the country.

Admiral Nimitz, now in command of the Pacific Fleet, in a much publicized letter written a month before Pearl Harbor, tells the results of a selective examination given to 4,200 entering freshmen at twenty-seven of the leading universities and colleges in the United States.[1] Results showed that sixty-eight percent of the men who took this test failed in the arithmetical reasoning test. Sixty-two per cent failed the whole test, which included arithmetical combinations, vocabulary, and spatial relations. These failures, he reports, were not borderline failures, but were "far below the passing grade." A study was made of these grades when they had been classified geographically. A greater proficiency in arithmetic was noted in the eastern part of the United States than in the West and Middle West. "The lowest average mark east of the Mississippi," he says, "was equal to the highest average mark west of the Mississippi."

Now Illinois is dangerously close to the Mississippi, and the faculties of

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[1] In a letter written to Professor A. H. White, on November 12, 1941, while Admiral Nimitz was head of the Bureau of Navigation of the United States Navy.

Illinois colleges and universities are well aware that the arithmetic background of their students is so weak as to be pitiful. Surely, in many respects, the teachers of Illinois at the present time are doing a better job than ever before, but results show a decline in the mastery of the fundamentals of arithmetic.

In the fall of 1926, the entering freshmen at Illinois State Normal University were of sixth grade level in arithmetic. This statement is based on the results of the Mills Selective Test,[2] a twenty-problem test, which includes nothing above traditional sixth grade subject matter. Even so, the median grade that year was 66. If 70 points out of a possible 100 is considered a passing grade, it is fair to conclude that this 1926 group was of about sixth grade ability. Since 1926, this same test or a duplicate form has been given to each group of entering freshmen. Results have shown a small but steady decline. The class entering in the fall of 1940 showed about fourth grade ability—a median grade of 55.

Undoubtedly these college freshmen had forgotten some arithmetic during the years between eighth grade and the time when they entered the University. Why, though, should they forget more in 1940 than in 1926? Evidently other factors are responsible. Perhaps the stepped-up program is at fault, perhaps inadequately trained teachers are responsible in some cases, or perhaps the trend of activity programs may be blamed for the lack of some facts and skills. The modern activity school is likely to do an excellent job of arousing interest and presenting material in a way both attractive and meaningful, but the learning of facts is likely to be neglected.

The students themselves tell strange tales when they are asked for a possible reason for their low arithmetic ability. Some say they skipped a grade and thus missed some fundamental idea and the accompanying practice; some say that fractions always were hard for them; others say that they have always been afraid of arithmetic, or that they have never liked it. Several have said that in certain grades they had teachers who worked all the problems on the board and that the pupils' arithmetic assignment was to copy these solutions into a notebook.

Perhaps no one of these reasons is solely responsible for the decline of arithmetic achievement, which so obviously presents itself. Surely, however the *lack of practice in fundamental facts* is one factor causing this steady decline in the median grade. A University sophomore two years ago said that she had no idea that *anyone* knew the fundamental addition and subtraction facts from memory; all her life she had counted to get results and she supposed everyone else did too. She continued to count until she did her student teaching in fifth grade arithmetic.

It is evident also that many failures occur because there is no clear concept of terms used. Too many University students confuse *area, perimeter, cir-*

[2] A test of twenty problems compiled in cooperation with the departments of mathematics of the five Illinois state teachers colleges.

cumference, and *volume.* Certain ones of them venture somewhat vaguely that these terms have something to do with a square or with a cube. Very obviously they have had no real experience in measuring the distance around a plane figure to determine perimeter or circumference, in covering a square or a rectangle with unit squares to get the concept of area, or in filling a box with unit cubes to help understand the idea of volume.

Obviously there has been a failure on the part of teachers to cause an assimilation between the more or less abstract definition of the text and the real object or process as it is met in every day life. For example, University students frequently remark that throughout their upper grade arithmetic a cone was just a picture on a certain page in the arithmetic text. They had no idea that nature uses cones in the shapes of some trees and in the forming of icicles. Even students with rural upbringing are frequently surprised when they find that a silo is a cylinder, and when they find that the sagging pasture gate, a parallelogram in shape, can be made into a rigid rectangle when a diagonal of proper length is put in.

A third significant factor causing inadequate results in arithmetic is the failure to understand the meanings of the fundamental processes. Too frequently the multiplication facts are merely memorized. True, the memorization is necessary, but the idea that multiplication is the "process of finding the sum of a number of equal like numbers or quantities by use of the multiplication facts" needs more emphasis. Most children can be ready for the rationalization of this concept (with not too large numbers) during the latter part of the primary level. Too many students knowing that one cubic foot contains $7\frac{1}{2}$ gallons (approximately) and knowing that a swimming pool has a capacity of 15,750 cubic feet, would just as soon divide the number of cubic feet by $7\frac{1}{2}$ as multiply to find the number of gallons required to fill the pool.

In summarizing these failure cases at Illinois State Normal University and also those nation-wide cases of which Admiral Nimitz speaks, one may conclude that children have been inadequately trained in quantitative thinking and in the tools with which to do quantitative thinking. Today this type of thinking is more important than it has ever been.

Children and adults daily meet the need for answering questions concerning "how much?" and "how many?" and concerning comparisons of quantities. The foundation for thinking in these terms lies in a knowledge of the arithmetic of the elementary school. (An effective elementary school is assumed.) To be specific, this foundation includes ability to count, to measure, and to compare intelligently; it includes a knowledge of fundamental facts and processes, and of the meanings of these processes; it includes such a study of applications as will lead to the capacity to use these facts, processes, and meanings, each in its proper place.

Committees made up of mathematicians and educators from all over the

United States have been working on this large problem for several years. In 1941, the National Council of Teachers of Mathematics published its *Sixteenth Yearbook,* a significant volume giving reports and recommendations of many of these committees.[3] In this volume, the Council has sought to assist the teacher in planning and in putting into practice a better program and to provide for pupils "richer and more meaningful arithmetic experiences,"—to make arithmetic meaningful rather than mechanical.

At Illinois State Normal University, where arithmetic has always been an important part of the training of the elementary teacher, the courses offered in arithmetic are planned in accordance with the widely accepted recommendations of this *Yearbook.* Two courses are required of all graduates in the elementary curriculum. In arranging these courses, the faculty members of the mathematics department have assumed that the teacher who makes arithmetic a meaningful subject for her pupils must have an appreciation of the processes, facts, and skills involved. She must be able to take arithmetic out of the textbook into the every day life of the child, to show him the arithmetic that is about him everywhere, and to assimilate the textbook definitions not merely with textbook problems but with real problems.

The first course, taken during the freshman year, is entitled Arithmetic in Modern Life, and is designed to help the student see the quantitative relationships about him in his daily life. Its aim is to develop appreciations, understandings, and abilities in the solution of problems. The first half of the course includes a study of those phases of number growing out of counting and comparing, the number concept, and the fundamental processes, and leads into the social, everyday uses of arithmetic, including percentage. The second half deals with those phases of number growing out of measuring, and it leads into the study of areas, volumes, indirect measurement, graph, intuitive geometry, and constructions.

The second required course, taken in their junior year, is a professionalized course. It assumes that the students have (1) an appreciation of the fact that number is everywhere with everybody all the time, and (2) a knowledge of the number system and its operations. It provides for teaching to children in a meaningful way the skills and processes used in solving problems. Hence, it necessarily includes a study of the ways in which children learn the meaning of number and the skills they need to make number really useful to them. Particularly important is a thorough understanding of counting, for it is upon counting that the development of the four fundamental processes depends.

Counting is the child's first number activity. He learns to associate his counting with concrete objects. He counts his blocks, his books, the people in his family; he counts anything and everything he sees. Number is to him at this stage a concrete thing.

[3] "Arithmetic in General Education," 1941.

If it is to become applicable in any situation, it must first pass through a stage of abstractness.

It is important that children progress gradually as they move from their first concrete number contacts into an understanding of abstract number. Miss DeMay[4] decribes the stages of development as follows: Suppose a child is learning the number "3." First, she says, this "3" means 3 apples, 3 balls, or some other 3 real objects. Secondly, he passes to the stage where "3" means pictures of these 3 real objects. The third stage she calls the semi-concrete stage (the writer's students have referred to it also as the semi-abstract stage); at this phase, the child learns to recognize 3 dots, 3 lines, or any 3 non-picture things. All this time the child is hearing the "3" spoken, or maybe his teacher has been writing the "3" for him to see as the various groups of three are talked about. Lastly the symbol "3" should be taught as significant of any, or all, of the groups of "3" with which the child has had experiences; when he recognizes that it stands for units of any kind anywhere under any circumstances, he has learned the meaning of number.

Earlier in the discussion of this professionalized course, the remark was made that an understanding of counting was an essential background for learning the meaning of the four fundamental processes. A necessary sequence grows out of this idea. Counting and grouping make the perfect background for teaching the addition facts, and hence, for making addition meaningful. Next, with addition rationalized, it serves as background, through missing number practice, for an understanding of subtraction. Since multiplication is finding the sum of a number of equal numbers, again a background of addition is essential; through finding sums of equal numbers the time-honored multiplication tables become meaningful. And lastly, in turn, multiplication provides the background for making division a meaningful and not merely a mechanical process.

This professionalized course also includes a study of ways in which fractions may be made real, meaningful numbers to children. Actual experience with 3 of the 4 equal parts into which some whole has been separated helps to provide this background. With this understanding, then, two-thirds of four-fifths becomes just as real an operation if it is shown first as two-thirds of four-fifths of some real object. The addition of fractions may be made just as reasonable if children are shown the similarity between adding "2 feet and 3 feet" and adding "2 sixths and 3 sixths" before they use the fraction form.

A third course entitled Selected Topics in Arithmetic is elective in the senior year and is strongly recommended for teachers of seventh or eighth grade, or for junior high school arithmetic teachers. Like the second required course it is a professionalized course; it deals principally with the

[4] Amy J. DeMay, "Arithmetic Meanings," Childhood Education, June, 1935.

more difficult topics of the upper grade level.

It is believed that these courses will give desirable preparation to the teacher of arithmetic and that they will give to the state of Illinois teachers who know the subject matter, and who, knowing it, will like it and enjoy teaching it. Psychology has taught that success fosters success, that children like to do those things which they do well. It follows that they will derive some pleasure from well-performed tasks. Surely the teacher should genuinely enjoy those things she seeks to have her children enjoy.

Yes, she should even have fun with the arithmetic she teaches. She should find time for some of the numerous recreational phases of number: showing her pupils how to arrange a multiplicand and multiplier so that the digits in the product will all be the same, or showing them how half of twelve can be shown as seven. There should be enjoyment for teacher and pupils alike in reading from *Alice in Wonderland* of the branches of arithmetic studied by the Mock Turtle: Ambition, Distraction, Uglification, and Derision.

David Eugene Smith, the well-known author of many arithmetic texts and also of philosophical discussions, is the author of two small books which combine the recreational and the historical phases of arithmetic. Their titles, *Number Stories of Long Ago,* and *The Wonderful Wonders of One, Two, Three,* describe well the contents of the books. Dr. Smith, with Dr. J. Ginsburg, has also written a small pamphlet entitled, *Numbers and Numerals,* which like the first two publications is suitable for reading to pupils in the elementary grades, or for giving to the children to read themselves. The stories told in these three books have about them an element of make-believe, and yet they are founded on historical fact. They are told with a fascination, even a charm, that gives them an appeal to young and old.

It is believed that the teacher who enjoys these things will not relegate arithmetic to some remote corner to be met as infrequently as possible, but will use every opportunity to assist her pupils in developing arithmetic skills, in mastering arithmetic facts, and in developing accurate and clear-cut thinking about the various and numerous quantitative situations with which everyone is confronted every day.

Mathematics in the War Program

C. N. Mills

The organization of the courses in mathematics at Illinois State Normal University has been set up in such a manner that only two new courses have been introduced to meet the special needs of the war program. The two new courses are Spherical Trigonometry and Navigation. The regular courses in mathematics have met the requirements set up by the various Educational and Defense Commissions.

The department of mathematics has followed the recommendations of the War Board Commission in giving regular basic courses. No re-fresher courses have been offered because this type of course is not satisfactory for the upper level of students. The student who is capable of mastering basic material is given challenging new material. This procedure places the responsibility upon him to do his own reviewing in order to overcome his deficiencies in elementary subject matter. In this manner, the reviewing is not deadening to the student, and at the same time gives him more confidence in meeting the assignments of the defense program.

For several years it has been urged that solid geometry should be taught from the intuitive and computational point of view. In the Spherical Trigonometry course the demonstrative Solid Geometry is not required as a prerequisite. The student has had some introduction to the basic concepts in his upper grade arithmetic of Mensuration of Solids. It has been the experience of the department of Mathematics here that the Navy students in Spherical Trigonometry, who have not had the demonstrative course in Solid Geometry, do equally as well as the students who have had the demonstrative course. Within the past year, several textbooks using the intuitive procedure have come from the press.

The war program has given new emphasis to the need of more applications to enrich mathematics courses. Much material has come from the press during the last few years calling attention to the lack of progress in a great many fields of applied science. In recent textbooks, one sees some attempt to make use of more applications.

Students of Illinois State Normal University who have completed the regular courses through the calculus and differential equations are giving a good account of themselves in the various technical training programs. Any student possessing mathematical power has an unlimited opportunity ahead of him. Many unsolved problems still are being met every day. Today people live in a world of science, and mathematics plays an important role in the solutions of its problems.

Professional Activities of the Faculty

Floyd T. Goodier, director of integration, served as a member of the executive committee and dean of the Bloomington-Normal School of Religion and Life held at the Second Presbyterian Church of Bloomington on six successive Monday evenings from October 4 to November 8 under the auspices of the Bloomington-Normal Church Council. Three of the courses were taught by members of the faculty of Illinois State Normal University: Understanding Our Pupils by Dr. Francis W. Hibler, head of the department of psychology; How to Find and Use Source Materials for Primary Children by Miss Mary S. Arnold, instructor and supervising teacher in the third grade; Methods for Guidance of Intermediate Groups (Junior High School Age) by Dr. Marie Finger, assistant professor and supervising teacher in the seventh grade.

Dr. C. E. Decker, director of the division of secondary education, gave a stereoptican lecture on the subject "Nova Scotia, the Land of Evangeline" at the Ladies' Night Dinner of the Kiwanis Club of Leroy on August 26.

Dr. F. L. D. Holmes, director of the division of speech education, conducted speech examinations on July 12 for the University of Illinois Division of Services for Crippled Children for four post operative palate and lip cases and has been working with two of these cases since that time.

L. W. Hacker, associate professor of education, has been made chairman of the Curriculum Committee of the Illinois Rural Education Committee.

Dr. Chris A. DeYoung, dean of the university, is the author of two articles published in July. One appeared in *School and Society* and was entitled "Teacher-Learners in Workshops," and the other, which came out in the *Peabody Journal,* was entitled "Education—Pre-War, In-War, Post-War." Dr. DeYoung's latest book, *Introduction to American Public Education,* has been selected as one of the best books published last year in the field of education in a special report prepared for the American Library Association by the Educational Department of the Enoch Pratt Library of Baltimore.

Dr. H. O. Lathrop, head of the department of geography, spoke before the Central Division Council for the Social Studies on the subject "Commercial Relations with South America After the War" on October 9.

H. H. Schroeder, dean emeritus of the university, addressed the American Association of University Women on the subject "German Education After

the War" on September 25. On October 8, Mr. Schroeder talked before the Pike County Teachers' Institute on the topic "Education and Permanent Peace."

Dr. Stella Henderson, associate professor of education, is the author of an article "Curriculum in Wartime" in the September issue of *Education*.

Dr. Karl Bleyl, assistant professor of biological science, is a contributor to the book, *On Your Own*, written by Samuel A. Graham and Earl C. O'Roke and published by the University of Minnesota Press in 1943.

Miss Esther Vinson, associate professor of English, attended the clinic for advisors of student publications held at Columbia University by the Columbia Scholastic Press Association beginning October 28. Miss Vinson is the faculty advisor for both the *Index* and *The Vidette*.

Dr. A. H. Larsen, assistant professor of education, chairman of the research committee of Illinois State Normal University, attended a meeting of the high school testing committee in Urbana on October 15.

Miss Margaret Peters, assistant professor of business education, was the main speaker of the evening at a dinner meeting of the Christian County ISNU Club in Taylorville, October 13. Her topic was "Wanted: A Passage to the United States."

Miss Frances Conkey, acting head of the department of home economics, attended meetings of the Illinois Home Economics association on October 1. Miss Conkey has served as president of the association for the past two years.

C. W. Hudelson, director of the division of agriculture education, is the author of an article entitled "Museum Activity of Illinois State Normal University," which appeared in the October issue of the *Journal of the Illinois State Archaeological Society*. Mr. Hudelson was also a judge of the Bloomington Victory Garden Contest held August 8-15.

Dr. Richard G. Browne, associate professor of social science, became vice-chairman of the McLean County War Price and Rationing Board in July. Dr. Browne made several addresses in October on current problems. Among these was the talk before the Champaign County Alumni Club on "How the World Looks Today" on October 8.

Dr. Anna L. Keaton, dean of women, spoke to the Wesley Foundation on the topic "The Home I'll Make" on October 17.

Dr. C. W. Gamer, director of religious education of the Illinois Soldiers' and Sailors' Children's School, addressed the Bloomington Young Men's Club on August 17 on the topic "Pre-War Observations in Germany and Their Implications Today."

"They Shall Speak with New Tongues"

JENNIE A. WHITTEN*

No one, I am sure, was more amazed than the teachers of foreign languages when the editorial board of the *Reader's Digest* selected for publication in its May issue an article from an educational journal dealing with questions of language teaching. I refer to the article, "Teaching Languages in a Hurry," which was abridged from "Language Teaching Goes to War" in *School and Society* for April 3, 1943. As a result, almost overnight as it were, the general public became aware of foreign language teaching. Even in Normal, where techniques of teaching are certainly not unfamiliar to us, I found that high school youngsters and college students, faculty members and townspeople were asking me what I thought about the article and were wondering just how the method worked. One can only hope that the interest manifest in the spring of 1943 does not prove to be too fleeting to have any real effect on the attention paid to foreign languages in our educational system.

To direct public attention to linguistic needs in wartime was a real service, for it is only too true, as many writers have pointed out, that probably none of the larger nations, either among our enemies or our allies, was so poorly equipped linguistically to fight a global war as were we. The rank and file of the American public, even the public that had travelled on other continents, had preferred letting the other fellow learn English to putting forth the effort —for it is an effort—to learn a foreign tongue. The attitude is not surprising. An English visitor to our land from University College at Exeter was most kindly and understanding when he wrote in *School and Society* for May 3, 1941:

> From well inside the Middle West, with English prevailing for uncounted miles in every direction, the study of a foreign language can seem to men and women otherwise very reasonable the height of luxury and superfluity.

Then in December of that same year came Pearl Harbor, and at once the demand for trained linguists was in evidence. The need for expert linguists is obviously twofold: for immediate military tasks, including not only work in the armed forces proper but also in furthering propaganda services and monitoring foreign radios as well as broadcasting over our own; and in the second place, for the tremendous task of reconstruction once the victory is won.

A most illuminating article on the needs of the armed forces for trained linguists written by Major Francis M. Rogers of the United States Marine Corps Reserve, was published in the *Modern Language Journal* for May,

* Head of the Department of Foreign Languages

1943. Major Rogers stresses over and over the necessity of knowing the enemy's language thoroughly, and knowing it in its present-day form. He says, for instance:

> A knowledge of the vocabulary of the classical period of a country's literature, or of the Renaissance, or of the Middle Ages, is of no earthly use to the intelligence officer; nay, it may be a hindrance, and even disastrous. Supposing I had some preconceived notions of the meanings of the words like *battalion, regiment,* and *brigade* derived from studying the adventures of the Duc de Conde and his army. I then make an estimate of the enemy's forces on the basis of captured documents. I underestimate greatly. Several hundred Americans pay with their lives. In these days errors cost American lives.

The same accurate knowledge is demanded of the men who interrogate prisoners of war or translate captured documents. The interpreter who hopes to elicit information from a prisoner of war is much more likely to be dealing with a poorly educated individual speaking a dialect none too easy to comprehend than with some one who speaks the language of books. And as for translation of captured documents, Major Rogers reminds us that there "the chief qualification is the ability to read, and that without a dictionary, perhaps at night, by the light of a flashlight, and while being both bombed and under artillery fire." These uses are specialized skills, of course, but the point Major Rogers makes is that the language training offered by American colleges and universities has not provided the basis on which the specialized skills can build.

Furthermore, as William Berrien of the Rockefeller Foundation emphasizes in the same number of the *Modern Language Journal,* steps should be taken to better the linguistic proficiency of specialists other than those who work in the foreign language field itself as teachers or translators. That is, architects, engineers, librarians, physicians, agricultural experts, political scientists, historians, geographers, specialists in government and international relations, economists, sociologists, transportation experts, psychologists, scientists, lawyers, and members of many other professions and administrative occupations who have high competence in their own specialty ought to be reasonably competent in at least one foreign language as well. Surely it is dangerously shortsighted for those who are responsible for advising our high school boys and girls to suggest that a modern foreign language is only a luxury and a frill for any one who expects to get into *practical* work. It may prove to be an essential.

Inasmuch as the specialized linguistic skills needed by men in the armed forces had to be acquired as rapidly as possible, the American Council of Learned Societies offered its services to the government and developed the Intensive Language Program under the direction of Dr. J. M. Cowan of the University of Iowa. The report issued in December, 1942, indicates the way

in which the problem was attacked and lists the courses being offered in unusual modern languages.[1] Thus the University of Pennsylvania took over the work of the African languages and developed courses in five of the eight hundred or more languages spoken in Africa. Four Arabic dialects were developed at various universities; Burmese at one; various Chinese dialects at Harvard and Yale and Berkley; and so on through the alphabet to the three projects in the study of Turkish. In each case the method of work was fundamentally the same: a trained linguist taught the course and a native speaker handled the necessary drill work.

The popular discussions of such teaching have not mentioned several things which are needed before embarking on the study of one of these unusual languages. First of all, selection for such study is rigid and is restricted to people of superior ability and training. Previous language training counts heavily in being admitted, for experience has shown that it counts heavily in acquiring a new language. Thus training in Latin grammar, probably called useless in the high school days of more than one lad now singled out for special training by the Army or Navy, is again coming into its own. A report of the American Classical League, issued by the United States Office of Education, urges classicists to undertake the mastery of some of the unusual tongues. The report says:

> For a well-trained classicist to master Japanese in order to serve his country is a patriotic service which the classicist as classicist should be proud to render.

For obviously the training in Latin provides not only a technique for learning other languages, but also a basic linguistic skill, and a trained linguist ready to learn another language quickly and efficiently. So far as I know, no American without a previous superior linguistic record has attempted Japanese or any of the other languages under the auspices of the Intensive Language Program. You will note that the *Reader's Digest* in referring to the short space of time in which a working knowledge of Spanish was acquired claims only "without any previous knowledge of the language," and says nothing about previous knowledge of other foreign languages, including Latin.

In the second place, the emphasis on intensive training is important. The Council defines an intensive course as one occupying the full time of the student, from fifty to sixty hours per week, usually distributed so that fifteen hours per week are allotted to classroom instruction, fifteen hours to drill with native speakers, and twenty to thirty hours to individual preparation. The best results in the shortest time seem to come from two or three such sessions, each lasting six weeks, separated by short intervals of rest.

Thirdly, grammar training is essential. In fact, grammar provides the

[1] Report of the First Year's Operation of the Intensive Language Program of the American Council of Learned Societies by Mortimer Graves and J. M. Cowan. Obtainable at 1219 Sixteenth Street, Washington, D. C.

only short cut to learning a foreign language; otherwise one must devote as many years to learning to speak a foreign tongue as he did to learning to speak his native tongue. Too many readers of the *Digest* missed the significance of the highly trained teacher who taught *as much grammar as was necessary*. It is more than just grammar that must be taught, however; it is the essence of the language that must be acquired. Perhaps linguistic training would be a better term than grammar training, for it is more than the correct use of subjects and verbs and objects and clauses. It involves the ability to hear sounds accurately and transcribe them phonetically; it involves listening for the characteristic intonation of word and phrase and sentence; it involves some understanding of how a language is constructed.

With all the interest in the unusual foreign languages needed to further our war effort, it was to be expected that colleges and universities not included in the Intensive Program would make additions to their foreign language offerings. It is difficult to obtain accurate statistics on this point, but the *Journal of Higher Education* for June, 1943, published a "Quick Survey," which at least indicates the trend. French, Spanish, German, and Italian are still the chief college offerings, as they should be, but of the 449 institutions replying to the questionnaire, 75 reported courses in Portuguese, 51 in Russian, 22 in Japanese, 15 in modern Greek, 14 in Chinese, and 10 in Polish. There were scattered offerings in Arabic, modern Hebrew, and Swedish, and one course each reported for Celtic, Danish, Dutch, Finnish, Hindustani, Icelandic, Mongolian, Punjabi, Roumanian, Serbo-Croatian, Syrian, Tibetan, and Turkish.

Not only have colleges and universities included these new tongues in their curricula, but they have also in several instances begun the type of work known as *Area Studies,* in which the foreign language is really the basis of the curriculum, and studies in the geography, climate, vegetation, economic life, social and political life, history and culture of a given region or area are undertaken for the purpose of understanding as completely as possible the country whose language is being studied.

After the pressure of the war effort is removed, however, there must be some means of judging what are to be the languages really needed for the postwar world. Professor Mario A. Pei of Columbia University has analyzed the factors that make a given language significant in world relationships. One thinks first, perhaps, of numerical strength. But, as Professor Pei points out, that is important only when other conditions are such that the language becomes standardized and assumes a definite current and literary form. Chinese, for instance, is not a standardized language, and its innumerable dialects keep it from occupying first rank as a world language despite the 450 million people speaking one form or another of it. Practical significance, then, is achieved through a combination of political unity and power, which in turn results in a

standardized language, the numerical factor, force of expansion and commercial and economic penetration, and a cultural background. Judged on this combination of factors, the key positions in the languages of the world are occupied by English, German, French, Spanish, Portuguese, Italian, Russian, and Japanese. Arabic, Chinese, and Dutch are next in order. But for a thorough and utilitarian linguistic education, Professor Pei believes that, in addition to knowing the languages just mentioned, one should also be able to identify forty or fifty of the remaining others, and especially be able to distinguish between Bulgarian and Serbian, Greek and Albanian, Turkish and Persian, at least in the written form. It seems doubtful that many of us will acquire more than a small fraction of Professor Pei's irreducible minimum.

Nevertheless if in the post war planing, we see more clearly than Americans have ever seen before that foreign language is an essential, then there are certain educational implications that we need to consider. We shall continue to need in high school and college a basic linguistic training in Latin and the modern languages, just as we have needed it in the past, a training so thorough in the time allotted that it will be a real basis for future study as the need arises. And again I would emphasize that adults responsible for the guidance of young people should be slow to assert that one subject is *necessary* and *practical* and another only vaguely *cultural* when the reverse may be true. In the modern languages, I anticipate an increased emphasis on speaking a foreign language, perhaps only within a limited vocabulary of 800 or 1000 words, but nevertheless speaking. Most teachers of foreign languages will welcome that emphasis.

In college courses in modern languages, I hope to see this same emphasis on speaking as well as reading continued through the first two years of work, especially since these first two years will probably be taken by the non-linguistic specialists, the architects and engineers and historians and geographers of earlier mention in this article. This will undoubtedly mean a change in subject-matter content of those elementary courses, postponing difficult literary studies, philology, and philosophy to the third or fourth years or to graduate courses. Finally in the colleges I look to see an extension of the idea of area studies.

The emphasis today in changing foreign language teaching has stemmed from the practical military needs of the hour with something of a forward look to the practical needs of the postwar world. We are all agreed that the most important thing in the world right now is winning the war. And yet many of us, I among them, are disturbed by the undue emphasis on the practical and the so-called functional, especially in the plans for education for a democracy. Or perhaps I ask a much broader concept of *functional* than is current at the present time.

It seems to me that to study language, any language, should make each of us stand in awe before this marve-

lous means of communicating ideas evolved by mankind, this extraordinary invention of human beings which enables us to ask *What is life? Why are we here? Whither are we tending?* Enables us to ask and seek our answers from greater men and women than we the world over, who have set down their thoughts for us, each in his own tongue. Education, real education, is more than training for specific jobs and for making money. I want my foreign language courses to be practical. But I want my students not only well-trained linguists but also well-educated men and women. I do want them trained for winning the war and for jobs and for making money after the war, but I also want them to see the significance of language in human affairs, to realize that the essential element in human relationships is the ability to communicate one's ideas to others and in turn to comprehend their ideas. I would join my voice to that of Robert A. Hume, who writes in *School and Society* for January 2, 1943:

> I am pleading for the cultural values. I am pleading for that ancient, but I hope still vital, concept of education whereby the human mind is viewed not simply as one of several tools usable to further a specific skill or profession (though that happens to be one of its possible and acceptable uses) but as that part of man worthiest of full cultivation, furnishing as it does the promise of universal knowledge and wisdom, and, some have thought, the hint of immortality.

Such is a modern man's phrasing of a saying more familiar to us at Illinois State Normal University in the words from Plato that we have read hundreds of times in Capen Auditorium:

> A good education consists in giving to the body and to the soul all the beauty and all the perfection of which they are capable.

May those who shall speak with new tongues pass through the door of the practical into the realm of beauty and perfection.

Why Study Foreign Language?

KATHERINE E. CARVER*

Why study any language, even your own? Won't the need to communicate with your fellows furnish all the incentive you need for the acquisition of a practical, work-a-day vocabulary? What more do you want? What difference does it make how you say a thing, so long as you make yourself understood? What's the use of grammar and rhetoric, mere sets of rules invented by school-teachers and of no practical value in a modern up-to-date world? Why isn't the boy's "I hain't got none" a better and more vigorous expression than his teacher's "I haven't any"? Why teach a child to say "He and I did it" and then turn around and *try* to make him say "Between him and me"? What difference does it all make anyway?

Do these seem frivolous and irrelevant questions? I've heard some of them asked in all seriousness by certain persons, mostly by teachers who would like to put English classes and foreign language classes out of our schools to make room for some newer and more practical (?) subject of their own.

Some of these questions I shall answer in my own way, beginning, chiastically, with the last. It does make a difference whether you know when to say *he and I* and when to say *him and me*. There are, I think you will agree, certain decencies of dress and manner which mark the well-bred gentleman or lady. Pie may be eaten as efficiently with the knife as with the fork, but it simply isn't done in polite society. And there are certain decencies of speech which mark the gentleman and the scholar, and these, too, may not be violated.

A few years ago I was attending a meeting of public school teachers. As I sat dozing away a wasted afternoon, suddenly something caught my attention. I pricked up my ears and presently, deciding that here was something I could use, I got out pencil and paper. Here are a few of the pearls that were falling from the speaker's lips:

To we laymen

There was a few people allowed to talk.

The ignorance of we individuals

This type of a thing

Where there are a group of teachers

Now I do not think that I am overnice in this matter. If my laundress, who washes better than I can, makes a slip in English, I don't look for another woman to do the work. I am not offended if the workman who does an honest job of repairing for me gets his cases and his principal parts mixed up. But this man was a teacher, he pretended to be an educated man, he was being paid for making that speech, and his misuse of English showed how utterly uneducated he was. Never would I trust the user of such crooked English to have a straight thought

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about anything except the simplest kind of subject.

If a child, learning to talk, heard only good English day after day until his speech habits were thoroughly fixed, he would probably use only the best idioms in his daily conversation. But such ideal conditions do not exist in democratic America, and somehow it seems easier to imitate the crudities of the vulgar tongue than the niceties of trained and careful speech. Hence the need for grammars.

But, I am told, we are not all aiming at eloquence and fluency of speech, all we want is enough for everyday use. Certainly you do want accuracy, accuracy in the use of vocabulary, and accuracy in the logical arrangement of that vocabulary into sentences. Complete understanding of a conversation cannot be attained unless both persons attach the same meaning to their words, and apply the same generally accepted rules to their use in sentences. You remember the result, when, on the Plain of Shinar, the builders of the famous tower began to use each one, his own peculiar language.

I sometimes think that those who argue that the study of language is worse than useless, because it wastes time that might be spent on more *practical* subjects, fail to realize how really important it is. Like other everyday blessings it has seemingly been cheapened by its very universality, and its real value has been concealed or forgotten. Honestly now, if some god, who had the power to bestow and to take away, were to compel mankind to make an absolute choice between language and—well,say c h e m i s t r y or Diesel engines, which would you choose? I think you would not hesitate to say that you would keep language, for with it man could in time regain what he had lost; without it he would soon lose what he had kept. For, when you stop to think of it, you must realize that language is the very foundation upon which has been built all else that makes man what he is. Language is the foundation of all real social life, of all civilization, of progress, of all that man has been able to accomplish since he left the treetops and caves of his primitive ancestors. It is a tool which its owners have no right to dull with misuse or neglect. Its grammar is a science as valuable as chemistry and physics, whose marvels are so readily turned to deathdealing weapons of warfare. Of all the studies offered in the high school, the study of one's native tongue is the most important and practical. The laboratories where hands work with material to produce visible results, the field trips to the local dairy, or farm, or factory, may be more fun, but language is more fundamental.

Time was when training in language and mathematics constituted an education. But when the so-called natural sciences began, quite rightly I am sure, to claim their place in the sun and in the school curriculum, these time-honored subjects were pushed closer and closer to the wall. I said the *so-called* natural sciences, for I think that the expression *natural science,* as commonly used, is my one pet peeve. What, I ask, is there *unnatural* about language, and what right has the

chemist or biologist to maintain that his is the only knowledge? Does he know what the word *science* really means?

We have all been willing to make way for these new subjects; we recognize their value, we gladly avail ourselves of the blessings they bestow, we welcome the comforts and amenities of life which they make possible; we do not refuse the electric lights, the telephone, the automobile, the radio, the sense of security offered by modern scientific medicine and surgery. All this and much more, we accept, and are duly grateful. Still, at times some doubts will rise and w e w o n d e r whether, after all, this modern world is a better and happier place to live in than was the old one.

But this is not all. The modern high school must take care of those whom language does not attract, nor mathematics, nor the scientific laboratory. For those who were formerly cared for by apprenticeship in shop or factory, who did with their hands the work which the machine now does, we must provide a place in the workshop, in the school kitchen, at the typewriter. And with this, too, we have no quarrel. Those boys and girls whose tastes and abilities do not incline to language and mathematics and pure science, who probably do not expect or care to go on to college, have a right to some place where they can do good and honest work and be happy in the doing. The trouble here is that sometimes boys and girls who do have abilities which need other training are attracted into courses whose visible results are so much more readily apparent, and they find, too late, that they have missed a foundation on which they would like to base their maturer work.

I do not mention here the other things which have filled up the modern high school program, and which are encroaching more and more upon the time once given to academic subjects. Athletics, dramatics, clubs of all sorts, are somehow felt to be of more importance than classroom work. They claim the time and strength of both teacher and pupil. Maybe they are more important, but I believe that their lasting value is yet to be demonstrated.

You are thinking it is now time for me to get back to my subject, for I have not, as yet, tried to answer the first question of all, *Why study foreign language?* I can do this in few words, and I have two answers ready. In the first place, foreign language must be studied in our American English-speaking schools because it is the foundation upon which alone can be built an accurate and substantial knowledge of English, and that knowledge is the foundation of all other knowledges. For English, Latin is the most fundamental of the foreign languages, not only because it has furnished a good half of our vocabulary and because it is still the most prolific source from which we derive the living, growing part of that same vocabulary, but also because its syntax is so easily understood. The difference between the use of *he and I* and that of *him and me* is much more easily explained and understood in Latin than in English. It is the Latin teacher's duty to see to it that

this connection between Latin and English is made and kept constantly before the class, not because the English teacher can't and doesn't explain these things, but because the Latin teacher can do it so much more easily.

No one has a right to attempt to teach English who has not had a thorough training in Latin,—and by that I mean *thorough*—and all English teachers will do better work if they know at least one modern foreign language, if, in other words, they are not mere English teachers, but *language* teachers. They need not, in their classes, say one word about Latin, or French, or German, or Spanish, but their knowledge of their own beautiful mother tongue will be so much enriched that it cannot help enriching every lesson they teach.

And this holds good, not only for teachers of English, but for all who have need to make good use of English. Of course grammar and vocabulary alone cannot make an orator. As my friend Cicero remarked two thousand years ago, natural ability without learning has oftener been potent than learning without natural ability. It wasn't a college education that wrote the Gettysburg Address, but it wasn't rail-splitting either. In ten thousand rail-splitters there was only one Abraham Lincoln, and you may remember that he once walked eight miles to borrow an English grammar.

One ray of hope I see in the modern scene. The radio has opened a new field of occupation. Perhaps when the public tires of hill-billies, and barn-dances, and quiz programs, and matricidal orators who murder their mother tongue, a demand will be created for announcers and advertising orators who have pleasant, well-trained voices, who know the resources of language and how to use them. Already I think I see a trend in this direction. Perhaps it will lead to a revival of respect for the niceties of human speech.

So far, I seem to have been advocating the study of foreign language because it is helpful in the study of English vocabulary and syntax, the dry bones, as it were, of language, but as necessary as a properly formed and jointed skeleton to the bodily frame. This thought brings me to the second answer to our question. For, if our language students have been fortunate enough to have ventured beyond this and have tasted the sweet flesh of Latin, of French, or of German literature, they have acquired the cheapest and best diversions for leisure time, something that has widened their sympathies and deepened their understanding of other peoples than their own. No one who has read the lovely lyrics of the German poets can believe that all Germans are Hitler's Germans. In short, I would have more young people today get the kind of education that I got because I have had so much pleasure out of it.

I know that this opinion of mine is unorthodox,—nay, worse, that it is old-fashioned. The modern idea is that a liberal education demands a superficial knowledge of language, of the natural sciences, the social sciences, mathematics, art, music, the school activities. The trouble is that this

broad education is likely to be mighty shallow. There are so many possible subjects to study, and all so important, that no one student can master them all. Again I shall be called unorthodox, but it is my firm belief that it is neither necessary nor desirable to have a smattering of all subjects in the curriculum. I can turn on the electric lights as efficiently as any student of physics in the land, and run the vacuum cleaner without understanding at all how or why the contraption works.

Perhaps some day we shall recognize that a liberal education does not consist of a superficial knowledge of everything but of a thorough knowledge of the few things for which one has taste, and which he has the ability to master, plus—and this is important—a respect for all other useful subjects, and a respectful belief that others, whose tastes differ from one's own, are doing honest and useful work in their chosen fields. I do not think that this kind of knowledge necessarily shuts one off from some knowledge of other fields. I believe that even as I do not need to know science before I can make use of what the scientist has to offer, so he does not need to know language as I need to know it. But his own use of that language will be, I am sure, more accurate and more eloquent if he has daily contact with those who know English as he knows science, and if his English teachers have known English thoroughly, because they knew foreign language too. Perhaps in that Utopian tomorrow American English will cease to be the careless, lawless speech which it is today.

It remains to say a few words about the study of foreign language in a post war age. When the most deadly explosives and weapons known to science have completed their devastation of a war torn world, shall we go on developing explosives and weapons ever more and more deadly? Probably. But would it not be better if we had a generation trained to communicate with other nations, to understand them and sympathize with them? I can think of nothing more practical at this very minute than American soldiers who in North Africa could speak a little French, or who in Italy knew enough Latin to pick up Italian rather quickly, or who could exchange *Wie geht's* with German prisoners or captors. And I can think this without being a sentimental pacifist either. I'm willing to fight this war and to win this peace with the deadliest weapons known to science even if, while we are doing it, we must do without the better things for better living through chemistry.

Obviously we cannot throw ourselves frantically into an orgy of foreign language, trying to cram into our young people a smattering of all the thousands of languages from Russian and Japanese to Hottentot, although I suspect that some misguided enthusiasts will advocate this very thing. We shall be wiser if we go on, calmly and temperately, as we are doing now, giving the linguistic minded a fundamental training in Latin and in French, or German, or Spanish. These last are the modern languages which are geographically closest to us, and, equipped with one of these, any American ought to

find himself able to learn, in short order, such other tongues as necessity demands.

It will not solve the problem if we try to force a universal language upon all the peoples of the world. There is no surer way to foster a passionate love for a native tongue than to forbid its use. The necessities of commerce and of diplomacy will do much to solve this problem. Men's speech will follow their daily advantage. We have seen in our own country, how, without compulsion, English has become the language of thousands of foreign speaking immigrants. The Soviet Union, with more than one hundred and eighty different languages, is teaching the same lesson. Daily need is a better teacher than compulsion.

Sometimes it has seemed to me as if, in planning this universe and the inhabitants thereof, an all-wise Father had started his children off with what he thought they needed most, and the hope that they would keep these gifts, while adding others for themselves as time went by. And so he gave them speech and the users of speech, the poets and philosophers and orators of antiquity. We of the western world are the heirs of a Homer, of a Plato, of great tragedians, of a Virgil who knew that a nation's greatest glory was not to conquer but to rule with justice, of a Horace who thought that golden moderation in all things and the simple life were better than riches and power. We inherited the Ten Commandments and The Sermon on the Mount. Shall we sell these things for a mess of pottage, for the most deadly explosives known to science, or even for better things for better living t h r o u g h chemistry?

Please do not misunderstand me. I know that this war must be fought. I am saving all the grease I can spare to make those explosives, and I do look forward to the better living.

But I would keep the other too.

A Word to the French Teacher

MARGERY ALICE ELLIS*

When the Modern Foreign Language Study of 1924-27 established that eighty-three per cent of the students who began a modern language failed to continue their study beyond the second year, most French teachers felt that it was time to abandon the fourfold objective of aural understanding, speaking, reading, and writing, and concentrate upon the one objective that we could reasonably hope to attain in so short a time—the ability to read. Here in the Middle West, our students found l i t t l e opportunity to speak French, anyway, whereas the ability to read French might enrich their leisure and continue to grow in the years after they left school. Many of us quit pretending that we had two years in which to lay a careful foundation, on which to build during the next two; abandoning our lively and interesting direct method, we made a regretful about-face, whittled down our program, and concentrated on teaching our pupils to read. I still think we were honest and realistic in so doing. Now, however, the times are changing. The pressure of necessity is already beginning to strengthen our position in the curriculum, and we can look forward to keeping our students for a longer period of time. The boys and girls who study French can reasonably expect to find a need for understanding and speaking the language. We have all realized how much interesting activity our classes lost when we shifted the emphasis away from talking; now that we can conscientiously return to an oral method, most of us will do so with joy.

What are these new needs for spoken French? The first is military. Mario Pei, professor of War Linguistics at Columbia University, warned in a letter printed in the *New York Times* of November 11, 1942:

> Now that we have given guns and planes and tanks, it is time that we give some attention to the secondary problem of languages in connection with our armed forces. Knowledge, even in the form of a smattering, of the tongue of an ally or enemy, may easily spell the difference between life and death, between escape and capture, to the individual soldier. To a military unit it may signify survival or extinction. To an army as a whole it may conceivably mean victory or defeat. To put matters mildly, it certainly will make the difference between comfort and discomfort, between making and not making his wants known, to each and every soldier who lands on European or North African soil. And, incidentally, it is significant that the three languages taught to the American troops in Britain, and apparently most needed by General Eisenhower's men, are precisely the

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three that have recently been most neglected by American high schools and colleges—French, German, and Italian.

Ephraim Cross, in his paper "Languages in the War," in the *Modern Language Journal* for April, 1943, writes:

> The linguist must listen in on the enemy's councils; he must interrogate the captured enemy; he must intercept the enemy's messages written in his own and other languages or in a linguistic disguise; read the enemy's documents, decipher the enemy's code; meet the falsehoods the enemy showers upon his own people.

Madame Chiang Kai-shek called attention to the fact that one of Doolittle's fliers who came down on Chinese soil knowing only one word of Chinese (the word for *American*) found that single word potent. How many of us have received hurried requests from relatives in North Africa for French dictionaries, conversational manuals, or any kind of linguistic aid? We French teachers hear from our former students in training camps in this country that they are meeting in informal groups with boys from other schools to practice French conversation. An American boy in New Caledonia writes that his life there would not be unpleasant if he could only speak French.

The soldier must learn to interpret signs and directions in order to find his way about a strange country. The bond of a common language decreases the friction between soldiers and the people whose soil they are occupying, whether the occupation be friendly or hostile. When our armies landed in North Africa, President Roosevelt broadcast to the French people in their own language, assuring them that we were not taking permanent possession of their soil, and expressing his personal affection for the French people.

In the bulletin "Government Uses of Foreign Languages," Dr. E. Ruth Bishop of the United States Civil Service Commission speaks first of the great demand for persons who can do stenographic and secretarial work in foreign languages. There have also been many calls for language experts with training in the social sciences. Facility in one or more foreign languages has been among the requirements for such positions as auditor, construction engineer, or transportation specialist. There has been a demand for people with sufficient fluency to do broadcast monitoring. "The different kinds of openings in the government service," writes Dr. Bishop, "for persons with a foreign language background who also have training in another field are practically unlimited." Last year the demand for French was second greatest among the languages required for regular translator work. To help fill these needs, the fourth year of French is being credited as a war course this year in the high schools of New York City.

What students should begin the study of French now in the high school in order to have a commendable speaking knowledge by the time they have finished their preparation for their chosen career? Any who hope to take advantage of the post war opportunities

for service abroad as scientists, physicians, nurses, economists, sociologists, lawyers, historians, librarians, geographers, agricultural experts, transportation experts, civil and aeronautical engineers. There will be calls for bilingual salesmen of the many products America will supply to a needy world. Airports and the airplane industries will need officials and employees who can speak the French that most cultured Europeans use in their travels beyond their own borders. Advertising will be written in the languages of the foreign customers. In the Balkans, Greece, Switzerland, Belgium, and North Africa, as well as in France itself, a knowledge of French is almost indispensable; in many other countries, it will be a useful auxiliary to English.

Paul McNutt, chairman of the War Manpower Commission, asks:

> Is it too much to hope that the end of the war will find a pool of technically trained Americans ready, *Americans specially trained also in the languages, traditions, and backgrounds of foreign countries,* who will be available for undertaking the most instantly pressing needs of post-war reconstruction abroad? That, it seems to me, is a goal to aim at.

Washington already needs these bilingual technicians, but few are available, and it is too late to train others for present needs. It is not too late to give language as a tool to our postwar technicians.

During the summer, a committee of educational authorities representing the United Nations governments in exile (Belgium, Czechoslovakia, Greece, the Netherlands, Norway, Poland, Yugoslavia, and the Fighting French) recommended that both English and French be introduced into the higher grades of the elementary schools in those countries as compulsory subjects and that all publications intended for international use be published either in English or in French, or be accompanied by substantial summaries in those languages. To prevent the arrangement from being one-sided, they recommended that French be taught in the elementary schools of the English-speaking countries. This committee, meeting in London under the chairmanship of the Netherlands Minister of Education, M. Gerritt Balkenstein, disclaimed any interest in a new international language. More recently, a group of European delegates asked that French be recognized as the other official language, on a par with English, at the United Nations Conference on Food and Agriculture held at Hot Springs, Virginia.

But it is not only during the postwar period of reconstruction that we shall make increased use of foreign languages. America is thoroughly convinced that isolation is a dead issue. The problems of other peoples henceforth concern us so vitally that we must strive to understand their thinking and their way of life. Only through a knowledge of their language can we achieve this understanding and become truly international. Germany made its young people master foreign languages that they might help understand other peoples in order to undermine and destroy them; we must be equally

thorough in achieving the understanding of other people's minds and hearts in order to work with them for our common good. It is stupid to say, "Let them learn English!" That sort of one-way street leads only to overbearing nationalism.

Not only our leaders, but also our average citizen must acquire the sympathy and understanding that come with the ability to hear and read what the other man has to say in defense of his point of view. Recent developments in aviation will multiply our contacts with other countries and make foreign travel for business or pleasure much more general after the war. The world has grown much smaller in the last few years, and its peoples will have increasingly greater opportunity to communicate orally with one another. Mortimer Graves, Administrative Secretary of the American Council of Learned Societies, writes in *Asia Magazine:*

> With the tremendous improvement in the techniques of transmission and the recording of sound, and with the certainty that the days of isolationism for the United States are over, we are moving into a world of communications and intelligence which is completely different in character from anything we have known before. Whether we like it or not, we are in for a new era of mutual world awareness, in which our past methods of news gathering and international communications will be looked upon as almost antediluvian. We are as thoroughly unprepared to live in this world of peace as we have been to fight in it in a totalitarian war.

The high school French teacher must help to acquaint the administrators and the public with the opportunities opening up to the pupil who studies French so that they will be willing to grant her work the increased time it will require. She must revamp her course to meet the changing needs. Only a few of the colleges—those with special Army or Navy units—can take immediate advantage of the revival of interest in the languages; the others have already lost their men students to the armed forces and the war industries. The high school teacher, on the other hand, still has boys in her classes, and boys whose need for linguistic equipment is greater than ever before. Many of them will be soldiers or sailors next year, with immediate opportunity to put into practice all the French she can teach them. Others are future engineers, mechanics, and business men, whose work will take them to French-speaking countries after the war. French is to this group a valuable tool, which they must be taught to use now before they become engrossed in the technical or professional aspects of their special fields. The teacher must cease to think of French as purely cultural, and realize that for many it has become as practical as typewriting or shop work.

The new course must stress the speaking aim; we shall therefore work for correct pronunciation, making more use of phonograph records, memorization, dialogues, and oral composition. We shall also read more about France and French-speaking countries, supple-

menting the sketchy, made-to-order book about France with newspapers and magazines, and encouraging correspondence with boys and girls in other countries. We shall decrease the place of fiction in our early courses, where the pupil's appreciation of literary merit is low anyway, and add interesting non-fiction from many fields to increase his comprehension of contemporary conditions; in more advanced courses, we shall still study literature as being the finest expression of a way of life.

Where can the teacher find help in planning an interesting and practical course? The American Association of Teachers of French has been very active in locating and preparing material and making it available to the teacher. Every French teacher should send to the Information Bureau of the A.A.T.F., Teachers College, Columbia University, for its list of materials—reprints of newspaper and magazine articles and speeches on France by such writers as John Erskine, Dorothy Thompson, and Andre Maurois, as well as reprints from professional journals; recordings of French broadcasts; publications of the Commission on Teacher Education; loan exhibits, and realia lists. The following list is merely suggestive:

BOOKS AND MAGAZINES

Materials for a War Course in French is an eighty-three page mimeographed book of lessons on the Army, Navy, Airforce, and Civilian Defense. It includes such documents as President Roosevelt's address to the French at the time of the North African invasion, General De Gaulle's call to the French to continue the fight from abroad, and the Declaration of the Rights of Man. There are letters of the present war, dialogues, conversation exercises, and a twelve-page vocabulary of war terms. In the dialogues, an American soldier interviews a civilian bringing information, questions a prisoner, asks for directions, and billets his men. Typical reading units are entitled "With the Fleet," "A Mission in Tunisia," "Air Raid Warning," "The Paratroopers." In the vocabulary of war terms are such words as dive-bomber, joy stick, tail light, monkey wrench, gas tank, stalled, all clear, slow down, dangerous curve, sprain, dress a wound. Some of these lessons and the vocabulary unit may be bought separately for a few cents.

France 1940-1942, A Collection of Documents and Bibliography, by Howard C. Rice, is a fine source book for the teacher. Subjects treated in the documents are the impact of the armistice on the people of France, the terms of the armistice, the program of the "National Revolution," prisoners of war, difficulties of material life, underground resistance, the colonial empire, the Otto list of books forbidden by the German authorities.

Military French, by Francois Denoeu, is a textbook embodying grammar and a military vocabulary in a narrative which pictures the life of a soldier.

The *Modern Language Journal* and the *French Review* are more valuable to

the French teacher than ever before. Among French language newspapers, *Pour la Victoire*, edited by the French refugee journalist Genevieve Tabouis is particularly interesting. It publishes a monthly student section called *La voix de France*. *Le Recueil*, the French digest published in Quebec, is similar to the *Reader's Digest*.

FILMS

The A.A.T.F. "Film List" is an evaluation of fifteen French films available for rent.

LOAN EXHIBITS

The A.A.T.F. has a loan exhibit of French realia which may be obtained for the cost of transportation one way by writing the chairman of the committee, Dr. Minnie M. Miller, Teachers College, Emporia, Kansas.

An exhibit of French-Canadian realia, consisting of books, posters, magazines, and newspapers, may be borrowed for carrying charges from Prof. Pierre Courtines of Queens College, Flushing, N. Y.

PICTORIAL MATERIALS

Item twenty-six of the Bureau's list is a set of photographic enlargements of French commemorative postage stamps. These black and white pictures, 11 x 16½, available at ten cents each, contain many illustrations the teacher will enjoy using on the bulletin board. The class that reads "L'Evasion du Duc de Beaufort" will be interested in the print "Le Donjon de Vincennes." Daudet's mill will interest others. Among the forty subjects are Versailles, Mont St. Michel, Carcassonne, Carte de France d'Outremer, Pierre et Marie Curie, and Fragonard's "La Lettre."

L'Encyclopedie par l'Image. It is still possible to get some of the inexpensive, profusely illustrated texts of this edition. Among available subjects are Paris, Les Cathedrales, Versailles, Jeanne d'Arc, Pasteur.

MISCELLANEOUS

The Bureau's Realia List gives addresses from which the teacher may obtain films, slides, prints, photographs, records, flags, magazines, newspapers, radio programs, songs, Christmas cards, maps, charts, games, and coins.

Finally, the educational journals of the next few months should bring descriptions and evaluations of the new methods tried out in the Army language courses. The teacher should be alert both to adopt new procedures that have proved their worth and to avoid duplicating experiments that have demonstrated their futility.

Latin for the Sixty-Nine Per Cent

M. Regina Connell*

This article is not intended for Latin teachers. It contains nothing of which Latin teachers are not already cognizant. It is intended for the laymen, so to speak, and for the non-Latin teachers who have not examined any high school Latin texts published during the past twenty years. The writer was prompted to write this article because of questions that are sometimes raised regarding the value of studying Latin for two years only. Some say:

> Of course Latin is all right for those who study it long enough to read Cicero and Vergil and other great writers as most students did in the past, but now only about thirty-one per cent of those who begin the study of Latin continue it beyond the second year. What are you doing for the sixty-nine per cent? Do the people who study Latin for two years get enough from it to warrant their spending this much time in studying it?

Latin teachers are wholly in accord with the belief that each year of study in any field should yield returns commensurate with the time, cost, and effort spent in the study. In fact, they believe that every single day spent in the study of any field should be worth while, and they are convinced that the study of Latin for even a short time can yield adequate returns. Many still think of Latin as the traditional subject it once was, a gentleman's course for the favored few who were to go on to college. They are not aware of the great changes in the content and teaching of Latin in the past twenty years. First-year Latin texts now are more than Latin grammars, and second-year books are more than Caesar's *Commentaries on the Gallic War*. Latin is no longer taught solely to prepare students to enter college.

It is not the intention of the writer to discuss Latin content and teaching of the past. Like any subject in the curricula of the schools, Latin has always been taught by competent and incompetent teachers and studied by strong and weak students. Content, no matter of what kind, has potentialities for good or ill depending on what is done with it. In the past, the *Commentaries* of Caesar and the *Orations* of Cicero were, perhaps, merely exercises in the indirect discourse and subjunctive mood to some, but to many—thanks in part to excellent teachers—they were accounts of great deeds of great men that made history just as surely as Marshall, MacArthur, Eisenhower, Churchill, and Roosevelt are making history today. Fortunately, there have always been a Mark Hopkins and a Mr. Chips in some classrooms.

Everyone knows that during the first quarter of this century there were at

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work social and economic forces that were to affect profoundly the whole system of American education. With the broadening of the curricula in our high schools and the increase in the high school enrolment, with the accompanying wide diversity of abilities, needs, and interests of the students, all subjects of study and particularly those of long standing like Latin, naturally and rightly were to come under scrutiny. In the case of Latin, Latin teachers themselves were the first to take stock of their own work, and all who wish may read the full report of their findings and their recommendations, published in 1924 under the title, *The Classical Investigation*. As a result of the recommendations made by the Latin teachers, many new Latin text books were published, which contained a rich body of new material that was to influence greatly the teaching of high school Latin. Practically all Latin texts published since 1924 reflect in some measure these recommendations.

Another factor which was to influence the content and teaching of high school Latin was the abolition by the College Entrance Examination Board of the restrictions regarding the kind and amount of Latin to be read. Freedom in the choice of kind was introduced in 1910, and the elimination of the prescription as to amount was made in 1926. Many colleges and universities, too, were no longer requiring Latin as a prerequisite for entrance. Many students, therefore, were either not studying Latin at all or were studying it for less than four years. The *Investigation* had revealed that about sixty-nine per cent of those who begin Latin in high school study it for one or two years only .

The removal of the several restrictions in regard to Latin came at a time when people interested in Latin teaching were ready to suggest some changes in the traditional offerings. Latin teachers realized that Latin content and teaching must be such as would benefit one were he to study Latin for one year, two years, or longer. It should benefit one even though he might not go on to college. Aims and objectives, therefore, were set up for each year of high school Latin, and these objectives, at least in principle, together with the objectives of secondary education outside the field of Latin, have been the bases of the choice of content and the methods of teaching Latin since their adoption.

The immediate objective in the study of Latin had been and continued to be the progressive development of the power to read and comprehend Latin. The degree to which a student attains this objective naturally depends, among other factors, on his ability and the degree and kind of his application. Closely interrelated with this immediate objective are certain ultimate objectives. In general, the ultimate objectives set up for the first two years of high school Latin are: increased understanding of those elements in English which are related to Latin; increased ability to read, speak, and write English; development of an historical and cultural background; development of correct mental habits; development of right attitudes toward social situations; increased

ability to learn other foreign languages; and elementary knowledge of the simpler general principles of language structure.

If these educational values are to be realized, however, teachers of Latin must have as definite a conception of these values, and of the relation of the daily tasks to them, as they have of the elements of Latin itself. Values are not realized *per se*. For the ones studying Latin, the attainment of these educational values to a degree suffcient to justify its study requires that these values become objectives consciously aimed at through the use of appropriate content and method. Every desirable Latin text today embodies these objectives. One needs only to examine a Latin text book published since 1924 to discover what has been achieved in making it possible for Latin to be an interesting study, as well as a social and cultural influence on our youth who study it. It is not to be thought, however, that the content of Latin is confined solely within the covers of a text book. A competent teacher or a superior student sees content in Latin all about him. In the brief space of this article only a cursory description of the content of Latin today in the first and second year texts can be given, but a few of the main features will be pointed out.

Probably the most noticeable change in the new first-year texts is the very considerable amount of connected reading material, carefully chosen for (1) its capacity for developing the power to read Latin, and (2) the capacity of the subject matter to provide for the attainment of the historical and cultural values of Latin. With reference to the first criterion, consideration is given to the extent to which the material is adapted in difficulty to the ability of the pupil, the suitability of the thought content to the maturity of the pupil, the suitability of the material for creating in the student a sense of progress in the mastery of the language, and the attractiveness of the material to the student. The reading material is introduced frequently from the beginning. Though written in easy Latin, the short narratives and dialogues are classical material adapted from such sources as Caesar, Cicero, Ovid, and Vergil.

Forms and principles of grammar are presented through context. Every new principle of grammar is explained fully without the assumption that the student has any previous knowledge of English grammar. Very often the student has no previous knowledge of English grammar. The principles of grammar are presented in simple language with English examples; each of these is followed by the corresponding Latin usage. He would be a weak student indeed who could not pass an examination in both English and Latin grammar after he had studied Latin for three semesters.

Today the amount of syntax study formerly taught in the first year is distributed over at least three semesters, and some of the rarer forms are distributed over the four-year course. Forms are introduced only when they are needed. After a syntactical principle has been presented, it is illustrated in subsequent lessons frequently

enough to become fixed in the student's memory. The English and Latin sentences used for practice are more meaningful than they once were and are shorter and fewer in number. It is the belief of many today that connected, graded, and carefully chosen reading material is a better medium than are isolated sentences for practice in the mastery of forms and principles of syntax.

The vocabulary in first-year Latin texts today has been reduced to about ten new words in a lesson. From the very first, the student's attention is called to the close connection between words in English and in Latin, and students are encouraged to recognize English words which are of Latin origin. They are encouraged to bring to class Latin words and words related to Latin which they find in newspapers, in commercial signs, and in their other lessons and reading. Word study is made an integral part of almost every lesson.

Another phase of the content of Latin in the first year today is the introduction of a large amount of material which is best described as historical-cultural and which emphasizes both the historical and humanistic side of Latin. This material includes the graded reading selections in Latin already mentioned, readings in English on Roman life and civilization, illustrations suggestive of various phases of Roman life, maps, and suggested library references.

Throughout the first year of Latin, students are taught Latin in much the same way as they are taught any other language. Latin becomes a living language. Students are taught to pronounce and read Latin readily. They say, see, write, and comprehend Latin. From the outset, they are helped to see that Latin is living today in the languages of the world. Through the language and literature of the Romans, they become aware of the fact that they will better understand modern life if they understand Latin life and literature.

The second year texts, like the first year texts, have a rich and varied content. The conspicuous feature of all the best second-year books today is the postponement of the reading of Caesar until the fourth semester, or until the latter part of the third semester. The modern second-year course opens with a thorough and functional review of the vocabulary, inflections, and syntax of the first year. Stories in "made" Latin are often used in connection with such a review and are chosen with the purpose of making the transition to Caesar's *Gallic War* easier.

An examination of one modern second-year text, chosen at random, but typical of the best second-year texts today, reveals a wide variety of reading material. In this particular text, there are approximately ninety-nine and one-half thirty-seven line pages of "made," adapted, or simplified Latin. Of this amount, about twenty-seven pages are "made" Latin; seventy-two and one-half pages are adapted or simplified. The "made" Latin consists of two stories, two plays, and the *Argonauts*. The stories and the plays are built around stories of Roman family life,

and they present important phases of Roman civilization. The plays appeal to the dramatic instincts of young students. The story of the Argonauts introduces the students to Greek mythology. Some of the selections of the adapted or simplified Latin are in great part the same as the original. The adapted or simplified Latin selections consist of narrative selections from thirty-two authors, including Livy, Eutropius, Aulus Gellius, Pliny, Cicero, Sallust, Quintilian, Tacitus, St. Jerome, the *Vulgate*, St. Thomas, Bacon, Descartes, Petrarch, Erasmus, Franklin, and others. There are, in addition, quotations from Plautus, Terence, Syrus, Horace, Vergil, Seneca, Juvenal, Martial, and Catullus. There are approximately forty-three and one-half thirty-seven line pages of unmodified Latin. The form is the historical narrative prose of Caesar and selections from Ovid's *Metamorphoses*. The latter gives the students some acquaintance with Latin poetry.

The *Commentaries* in Caesar's own language contain Caesar's own keen observations of people and events in Gaul, Germany, and Britain, countries which have influenced our own and which are playing a part now in the present world conflict. The amount of Caesar in the modern second-year texts is no longer the traditional four to six books. The amount has been greatly reduced. The selections included have been carefully chosen on the basis of their historical-cultural value. In this text, as in most of the second-year texts published today, the passages which are admittedly too difficult for the average class are given in simplified form or in summaries in English. All other portions of Caesar which are omitted are also summarized in English so that the students may see the continued story of the seven dramatic years which were destined to influence greatly the subsequent history of civilization.

In this particular second-year text, there are approximately sixty-four pages devoted primarily to an orderly treatment of forms and syntax. In addition, there are one hundred more English sentences at the close of the book to be translated into Latin. These sentences are based on the reading material, and only those forms and constructions that are frequently used in the reading are taken up for intensive study. No longer is a second-year Latin student required to use a text of Caesar, much of which he never completes, and a separate Latin grammar. One book now takes the place of two. At the same time, there is sufficient desirable material to fill the needs of the brightest student.

As in the first year, provision is made for a continuation of the study of vocabulary; for word studies in derivation; for studies in Latin abbreviations, quotations, and expressions commonly used today; and for studies in comparisons between English and Latin usage. Second-year books today include, too, much historical matter in English. Many texts point out the influence of Roman civilization on modern civilization. Many texts list additional books of reference in English to Roman civilization as well as historical

novels dealing with Roman life. As in the first-year course, students are constantly taught to compare Roman life and institutions with those of their own time, and to apply the critical attitude in interpreting the characteristics of their own age.

It is true that all teachers do not place the same degree of emphasis on the various divisions of the work. Many Latin teachers doubtless feel that it would not be desirable to do so, but that it is better to take into consideration the abilities, needs, and interests of each particular class and to work out such a body of content that it would be possible for every boy and girl in the class to have a definite and valuable education experience. Indeed, it is possible for Latin to be several fields of learning in one: social science, language, and literature. With the teacher who knows and loves Latin, who knows and loves children, who is alert, imaginative, and enthusiastic, every lesson in Latin can be, even for the sixty-nine per cent, an interesting and profitable adventure.

World Language--Singular or Plural?

ALICE L. EBEL*

On September 6, 1943, at Harvard University, when Winston Churchill paid a glowing compliment to Basic English and urged that its use be spread "more widely throughout the globe," he stirred up a lively discussion and some engaging controversy. Such discussion and controversy are not new. They mark merely another high point in the ebb and flow of the concept of a universal language. The concept is as old as the story of the Tower of Babel for ever since mankind attempted to build a tower whose top would reach to heaven, the curse of Babel has given rise to the dream of a universal language.

There have been times when this dream seemed near realization. As the Romans pushed back the frontiers of the known civilized world, their Latin language gradually became a universal language in most of the lands within and adjacent to the great Roman Empire. Even when the disintegrating force of the barbarian migrations broke down the last vestiges of Roman government, Latin survived because of its hold on the Church, and with the Church helped preserve much of the culture of the ancient world.

But Latin could not survive the rise of modern nations. The spirit of nationalism defeated most international realities. By that time, too, discovery and exploration had extended the known world almost to its natural limits, and the confusion of tongues was more evident than ever before. Yet the dream of "de-Babelizing" the world still lives in the minds and hearts of men, given added strength by our strong desire to bring a lasting peace to the world. Can this dream be realized?

Hardly any of the exponents of an international language go so far as to advocate the use of any one language to the entire exclusion of all others. Instead, they look to an international auxiliary language to be used in addition to one's native tongue as a means of communication with the other inhabitants of the globe. The suggestions of what this auxiliary language shall be are almost as varied as the number of advocates of an international language. We shall examine some of the more significant proposals here.

It may be well to point out first that pleaders for an international language have a tendency to become crusaders, to feel both that an international language will save the world from all its follies and above all that the language they favor is the only acceptable savior. Without going so far, we shall all agree, no doubt, that ability to exchange ideas with peoples of other tongues may help promote world harmony in these days when we are bound to have economic, technical, and scientific contacts with other nations, and we shall

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try to evaluate the claims of the various languages advocated.

Two large groups of "interlanguage" expounders are easily distinguished: those who place their faith in one of the existing national languages or a modification thereof; those who favor an artificially created language.

The *Encyclopedia Britannica* mentions that there have been some two hundred schemes for the creation of an artificial language. The least successful of these have had some arbitrary or philosophical basis, such as Solresol, which was based on the notes of the scale. Because all of them translate ideas into words having no relation to any other language, they place a great strain on the memory and are usable only as codes. One of the more recent of these languages is Ro, invented in 1904 by the Reverend P. Foster. A monthly sheet, *Roia,* is published, and the first chapter of John has been translated into Ro.

Much more acceptable and usable are the artificial languages based on one or more existing languages. Esperanto is the best known of these. It has a basic vocabulary of on thousand root-words, most of which are Latin in origin. Therefore, the claim of one of its enthusiasts recently in the *Saturday Review of Literature* that a working knowledge of it can be gained in "one-fourth the time needed to learn the easiest national tongue" is undoubtedly true. This comparatively easy vocabulary is combined with an entirely phonetic alphabet of twenty-eight letters and sixteen fundamental rules of grammar, which have no exceptions or irregularities.

Several small groups of high school students were asked to "translate" as much as they could of the following passage of Esperanto, which appeared in an article on the language in the October 2, 1943, issue of the *Saturday Review of Literature.* They had never heard of Esperanto before and were told only that adjectives ended in *a*, nouns in *o*, adverbs in *e*, verbs in this passage in *as*, and objective uses of nouns in *n*.

> La inteligenta persono lernas la interlingvon Esperanto rapide kaj facile. Esperanto estas la moderna, kultura, neutrala lingvo por la tuta mondo. Simpla, fleksebla, pratika solvo de la problemo de internacia kompreno, Esperanto meritas seriozan konsideron.

Among this group of students, those who had studied Latin or a Romance language were able to grasp the general idea of the passage. One who is an outstanding student with a good English vocabulary but who had never studied a foreign language, did as well as most of the language students. Therefore, one is inclined to agree with one of Esperanto's somewhat more critical exponents that the ease with which Esperanto is learned is greatly increased by a knowledge of Latin, the Romance languages, or literary English. How it would fare among the less classically educated masses is another matter.

Esperanto has been in use since 1887, when it was invented by Dr. L. L. Zamenhof. Esperantists claim

10,000,000 speakers spread over fifty countries; 4,000 books, original and translated, including the Bible; 100 magazines, appearing regularly. They cite the use of Esperanto for international business correspondence by "hundreds of firms including General Motors, Eastman Kodak, Selfridge Department Stores, and Stetson Hats." According to them, Esperanto is taught in public schools in various sections of the United States and in several colleges.

At the present time, Esperantists are emphasizing the "neutrality" of their language. Because all people using it are speaking an alien tongue, they maintain that it is "entirely free from national pride and prejudice, or cultural encroachment—an all-important requisite for a world auxiliary language." Its use in movies like *Idiot's Delight* and *Road to Singapore*, where a foreign language was needed which would not arouse ill-feeling against any particular nation, is reported as proof of the neutrality of Esperanto.

Ido, an Esperanto word meaning offspring, is one of the most flourishing variations of Esperanto. Over fifty schemes to reform Esperanto and Ido have appeared, according to the *Britannica*.

One of the more interesting "made" languages came from Professor Guiseppe Peano. In 1903, he began an address in classical Latin and pointed out that certain features of the language, such as conjugation, gender, and case endings, were not necessary. As he mentioned each of these unnecessary features of Latin, he dropped it from the text of his address. He finished in *Latino sine flexione* or Interlingua, a language which consists of living Latin roots without grammar and the use of modern word order. Among dozens of other artifical languages, Esperanto, however, remains the most flourishing.

What is the likelihood that Esperanto or some other synthetic language will come into wide use as an international auxiliary language? The artificial nature of these languages tends to defeat the very purpose for which they would be chosen. Because they have not gone through a natural process of growth, because they are not alive and never have been, they lack the flavor and tradition of a living tongue. Even a defender of artificial languages points out this vital weakness. Albert Guerard, writing in the *American Scholar* in 1941, says:

> No Esperanto can ever have the complex and undefinable savor of German or Spanish. A language embodies, to borrow a famous phrase from Maurice Barres, 'the soil and the dead.' It confers upon the humblest phrase a depth of intimacy beyond the reach of philosophers. It adds to the plainest sound a wealth of harmonics which eludes analysis.

No master writer has ever chosen an artificial language in which to express his thoughts. Nor is any writer of ability ever likely to do so. No one can imagine Shakespeare's choosing a colorless artificial language in place of his rich, living, native tongue. For that matter, it would be impossible to express even "Blondie" in Esperanto or

Ido. Therefore, an artificial language will never have a literature worthy of mention. As a result, in spite of some of its other claims, both valid and questionable, any synthetic language will fail as *the* international auxiliary language.

Artificial language enthusiasts too often "belong with those earnest creatures who are eager to redeem the world through a diet of raw carrots." Yet with proper perspective, artificial languages may have a valuable and e d u c a t i o n a l place in public high schools. After exposing the group of high school students to the passage of E s p e r a n t o quoted previously, the teacher was asked to sponsor an Esperanto club. The appeal of a language, easy to learn, which the uninitiated cannot understand, continues long after "Pig-Latin" is outgrown. At the same time, teaching oneself a usable language could not fail to be educational.

If we are to reject all artificial language as possible international auxiliary languages, those who still insist upon an international language will find the alternative simple. We must use one of the existing national languages or a selection of certain elements of one of the existing languages.

Just what that language shall be can quickly and easily be answered by an Englishman or American. English is the mother tongue of 200,000,000 people and the acquired tongue of regions where a half billion others live. It is the commercial language of the Pacific. Only Chinese gives it competition as far as sheer weight of numbers is concerned. These arguments favoring English, however, seem to be outweighed by the tremendous difficulty of English, if not by other considerations. Mario Pei, Professor of Comparative Linguistics at Columbia University, says that English is "at a tremendous disadvantage by reason of its complexities of spelling and pronunciation." Another scholar, Albert Guerard, points out that it is "one of the tersest and most idiomatic languages in the world —that is to say, one of the most difficult."

A ready-made solution to the difficulty of English seems to be at hand. It is Basic English, which one of its inventors, C. K. Ogden, calls "a scientific attempt to select the most fundamental words in the current language to form a practical auxiliary language for all nations" and which one of its detractors somewhat sarcastically subtitles "English almost without tears." The blessing which Winston Churchill bestowed upon Basic English in his Harvard speech has brought it to the attention of many Americans who previously may have thought that Basic English was the title of some kind of textbook on grammar. In fact, as a result of this attention a number of articles on Basic English have appeared in recent magazines. Among the more comprehensive (and more favorable) was one in *Life* for October 18, 1943, called "Basic English: A Globalanguage" by Lincoln Barnett. Some of the following material comes from this account; the rest, from "Notes on Basic English, No. 1," published by the Orthological Committee at Harvard University.

Twenty-three years ago two Englishmen, C. K. Ogden and I. A. Richards, were collaborating on a book entitled *The Meaning of Meaning*. While mapping out definitions of words, they noticed that certain key words appeared again and again in their definitions. They soon became convinced that a few words had the seeds of all ideas talked about in English, and they set about finding those words.

The selection of words was based primarily, not upon the frequency of use, but upon the ability of the word to take the place of other words. Therefore Basic's words are the ones "which say the most, do the hardest work and go farthest across the clouded and uncertain waters of the mother tongue." When Ogden and Richards finished their task ten years after starting, they had reduced the 500,000 words of the unabridged dictionary, the 20,000 words of the average, well-informed adult, the 8,000 words in common use to a language of 850 words, which can be printed on a single page. In this small vocabulary, 600 words are names of things (nouns), 150 are the names of qualities (adjectives), and 100 are "operations" (words which put others to work).

In selecting this irreducible minimum, they attacked verbs first. Almost all verbs can be broken down into the operations and directions which they are talking about. For example, if you *immerse* your hands in water, you *put* them *under* the water; if you *climb*, *mount*, or *ascend* a mountain, you *go up*. Thus it was possible for Basic to have only eighteen verbs in addition to the names of directions—*to*, *from*, *on*, *under*, and so on. *Give up*, then, covers all the meanings of *abandon*, *abdicate*, *abjure*, *cede*, *desert*, *desist*, *forgo*, *forsake*, *relinquish*, *renounce*, *resign*, *surrender*, *vacate*, *withdraw*, and *yield*.

Nouns, names of things, were next tested. They were placed in the middle of a circle of rays, which represented relations between the thing to be tested and other things. Thus *house* would be in the middle of a circle with a ray for size, on which words like *cottage* and *mansion* could be covered by *very small* and *very great* houses. Every sort of name in English was gone over carefully in this way. In the case of words with more than one sense of meaning, Basic kept only the meaning having more general value, if there was no clear connection between the several senses of the word. The connection between *foot* of a man and *foot* of a mountain is clear; therefore, both senses are kept. But no clear connection exists between a *bit* of cake and a horse's *bit;* hence only the first may be used in Basic.

At the same time that the vocabulary was streamlined, the grammar was reduced to a few rules. Basic keeps all conjugations of verbs and pronouns, forms adverbs by the addition of *ly*, may add *er*, *ing*, and *ed* to half of the 600 nouns, and forms opposites by prefixing *un*. All plurals are in *s*. Besides these additions, combinations like *bedroom*, *sail-boat*, and even *undertake* and *without* are permissible. Therefore, as critics point out, the vocabulary is much larger than 850 Basic words.

In spite of these additions, the person using Basic will soon discover that it often requires a round-about way of saying what he has in mind. *A canary* becomes, say, *a small yellow bird frequently kept in the house for its singing. Look before you leap* loses both terseness and alliteration: *Take a look before you make a jump.* In a translation of the New Testament into Basic, a translation which was made from original sources by a professor at the University of London, the Lord's Prayer is expressed as follows:

> Our Father in heaven, may your name be kept holy. Let your kingdom come. Let your pleasure be done, as in heaven, so on earth. Give us this day bread for our needs. And make us free of our debts, as we may have made those free who are in debt to us. And let us not be put to the test, but keep us safe from the Evil One.

Basic English lays one of its greatest claims for acceptance on the ease with which it may be learned. Ordinary courses of language instruction require two years or more to teach even a smattering of a foreign tongue. A working knowledge of Basic is supposed to be acquired in sixty hours. Students whose native tongue is not too far removed from English may be able to read anything in Basic at the end of a month of daily study. Recently in Arizona Basic was taught to Chinese flying cadets who were receiving flying training from British and American instructors. For a decade the Rockefeller Foundation has helped finance the teaching of Basic in foreign countries. It is taught to adult aliens in civic education classes in Massachusetts. Walt Disney has made an experimental short for Basic English Teachers. Yet Basic English continues to stir up considerable skepticism and does this somewhat justifiably.

An attack on Basic English was made by M. P. West, E. Swenson, and others in a bulletin from the University of Toronto. It asserted that the words of basic had been miscounted, that they actually ran into more than a thousand. These detractors said also that the learner was being misled into thinking that he has an easy job when in reality he faces "a very large, indeed incalculable one." Others have shown that no attempt was made to correct the "perverse spelling and bewildering pronunciation of traditional English" and that therefore much of the difficulty of the full language remains. The Toronto critics suggested even that errors had been committed in statements of meanings and that the vocabulary was very wasteful.

But the more telling arguments against Basic English lie in other directions. Dr. Lin Mou-shing, Chinese scholar, author, and editor, expressed a most disarming criticism in a few simple questions. Speaking recently on *The People's Platform,* he asked: "Why Basic English? Why not Basic Chinese?"

Churchill's suggestion that Basic English might become "a mighty fertilizing and health-giving river," which should be spread "more widely throughout the globe . . . without seeking selfish advantage over any," cer-

tainly smacks of "intellectual imperialism" and seems to be an attempt to "place the cultures of the world under a veritable empire of the English mind." Carl J. Friedrich, writing in the *Saturday Review of Literature,* emphasizes the same issue raised by Dr. Lin:

> There is indeed no reason why other languages should not develop a similar pattern of simplified expression and gain the same advantages which Richards claims we shall derive from learning Basic . . . we should like to think of Basic Russian as well as Basic English.

The intellectual aggrandizement of Basic English could become as heinous an international crime as any territorial aggrandizement ever has been. It would also be resisted with as much spirit.

At this point, we are almost compelled to disavow the likelihood of the ability of any one international language to cure the world's ills. It seems more likely to make them more acute. Whatever hope there may be for one international auxiliary language has been well put by C. J. Friedrich in the article previously referred to:

> And while we may succeed in getting a good many Russians to learn Basic English, it is more likely to happen if we offer them the token of good will which consists in a good many Americans learning Basic Russian. . . . If each man had mastered at least one other tongue in Basic besides his own, the foundation would be laid for world citizenship. For he would have emerged from the mental isolation of the mother tongue. . . only then—shall we have a right to hope that perhaps Basic English may become the universal medium of expression.

I. A. Richards himself agrees that Basic English need not necessarily serve as the universal language:

> By all means let the teaching of all the major languages be improved and extended. Time saved in learning English through Basic is time freed for them.

So far we have assumed that Basic English, Basic Russian, Basic Chinese, and other Basics will solve the problem of international communication. Certainly the Basic vocabularies will enable a person to get about in a foreign country, to order accommodations, to get food and train tickets, to buy souvenirs. But are these the only reasons for which we need to converse with out international neighbors? If so, "Pidgin English" and "Pidgin French" serve just as well. Signs even can take care of some of these simple associations.

"For whom is a world language intended anyhow?" asks Jacques Barzun in the October 2, 1943, *Saturday Review of Literature.* He continues:

> Heeding Mr. Richard's plea that we be practical, I should say *first* for the businessmen, the diplomats, the tourists, the men of science and intellect all over the world. Later, we may hope, the remoter toiling masses may learn English, but those who represent one country in its dealings with another are bound to

be, for some time to come, persons with more ideas than there are in Basic.

Therein lies the innate weakness in any Basic language—the limitation it places on the expression of ideas. We can use the Basic—yes—but only with the intention of graduating into the standard language. For as long as the diplomats need an instrument of delicate and tactful expression, as long as the scientist and the scholar wish to express precise terms, as long as the business man finds it necessary to do more than carry on the crudest transactions, in fact as long as tourists wish to know intimately the spirit of a foreign people, Basic lanuages will fail to serve. The royal road which a Basic offers to learning any language makes for easy riding only in the beginning and stops before it reaches any particular destination.

World language—singular or plural? The number is plural. And the vocabularies are long and hard.

Professional Activities of the Faculty

Miss Margaret Westhoff, instructor in music, was chairman of the Ninth Annual Music Clinic held on the campus October 24 and 25. Following the Clinic, the organization meeting of the In and About McLean County Music Club was held at Tilden Hall. The following members of the music department were charter members: Miss Emma R. Knudson, Miss Blaine Boicourt, Leslie Isted, Miss Glady Tipton, Barney Thompson, and Miss Margaret Westhoff.

Miss Mabel P. Crompton, assistant professor of geography, spoke before the Literary Center on the topic "East of Gibraltar" on November 15.

Dr. Margaret Cooper, director of the division of elementary education, and Dr. Chris A. DeYoung, dean of the University, conducted a Study-Visitation Conference in the Decatur elementary school on November 17. Miss Mary S. Arnold, instructor and supervising teacher in the third grade, and Miss Elizabeth Russell, assistant professor and supervising teacher in the fourth grade, also attended this meeting.

Dr. Richard G. Browne, associate professor of social science, has received a leave of absence from the University from February 1, 1944, to November 1, 1944, in order to become Acting Director of Research for the Illinois Legislative Council. In November, Dr. Browne also became a member of the advisory committee on international relations of the National Education Association. Recently he has addressed the Champaign Alumni Club and several Bloomington and Normal organizations on various aspects of current problems.

Miss Bernice Frey, assistant professor of health and physical education, spoke to the Girl Scout Leaders of Bloomington on the subject "The Negro Problem" on December 9.

Dr. Francis W. Hibler, head of the department of psychology, addressed the Governor's Conference on Exceptional Children on the subject "The Gifted Child—An Undeveloped Resource" on December 13. He also spoke to the College Alumni Club on November 19 on the topic "Hypnotism —Fact or Fable."

Dr. Rose E. Parker, director of the division of special education, has participated in the preparation by the Graham committee of a new bulletin on Education of Physically Handicapped Children to be published by the State Department of Public Instruction. She spoke to the Bloomington-Normal Women's Club on November 9 on the topic "Education of Exceptional Chil-

dren." On October 28-29 she addressed the Elementary and Secondary Teachers of Macoupin County on the subject "Problems and Methods in War-Time Teaching."

Miss Dorothy Hinman, assistant professor of English, spoke to the Bent School (Bloomington) P.T.A. on November 5 and to the Atlanta Women's Club on December 4 on the subject "Children's Books of the 1940's." On November 10 she talked before the Jefferson School (Bloomington) P.T.A. about "Books as a Means of Preserving Cultural Ideals," and on December 1 she addressed the Unitarian Alliance of Bloomington on the topic "1943 Children's Books."

Dr. Anna L. Keaton, dean of women, attended the Twenty-Fourth Annual conference of the Illinois Association of Deans of Women on December 3 and 4, where she served as the leader of a group discussion on the subject "Campus Problems in Wartime." Dean Keaton was chosen to serve as chairman of the resolutions committee for 1943-44. Miss O. Lillian Barton, former dean of women, served as chairman of the nominating committee for the association for this year.

Dr. H. O. Lathrop, head of the department of geography, spoke to the Ford County Alumni Club on November 16 and to the women of the First Baptist Church, Bloomington, on December 6 on the topic "Some Prerequisites to World Peace."

Dr. Helen E. Marshall, associate professor of social science, addressed the Delta Kappa Gamma Society of Rockford on November 13 on the topic "The Challenge of Today and Pioneer Women Teachers." She is the author of an article entitled "Pioneer Women in Education: a Delta Kappa Gamma Project" in the *Delta Kappa Gamma Magazine* in November.

Dr. Chris A. DeYoung, dean of the University, presented an illustrated lecture on "India" to the Ottawa Alumni Association on November 18. He spoke to the Bloomington-Normal Ministerial Association on December 6 on the topic "The Layman Looks at the Ministry." Dr. DeYoung has several articles dealing with school finance and administration in *The Encyclopedia of Modern Education* published in December.

Dr. John A. Kinneman, associate professor of social science, was appointed in November to a nationwide committee for the organization of chapters of the American Association of University Professors.

Miss Elizabeth Russell, assistant professor and supervising teacher in the fourth grade, addressed the Peoria Institute on November 22 on the subject "Changes in the Elementary Curriculum to Meet the Needs of Youth" and "The Function of History in the Elementary School."

Howard Hancock, director of athletics, spoke to the Fairbury Rotary Club on November 23 and to the Monticello Community Club on December 2 on the topic "Athletics in

Wartime." On November 15, he talked to the El Paso Kiwanis Club on the subject "High School Athletics."

Howard W. Adams, head of the department of physical science, is the author of an article, "Some Observations of the Influence of Sodium Carbonate in Water Supplies," in the *Transactions of the Illinois State Academy of Science* in December.

Miss Ruth Yates, assistant professor of speech, read poetry at the Ottawa Alumni Association meeting on November 18.

On November 9, Floyd T. Goodier, director of integration, spoke to the Cooksville P.T.A. on the topic "Looking Forward in Education."

Dr. Leslie Holmes, associate professor of geography, talked to the Bloomington Art Association on December 5 on the subject "Art and Science in Maps."

Dr. C. F. Malmberg, associate professor of psychology, has been appointed chairman of the McLean County Committe on Education and Rehabilitation of the American Legion. Other members of the faculty on this committee are: Dr. Sherman G. Waggoner, principal of University High School; John W. Green, assistant professor of agriculture; Thomas J. Douglass, assistant professor of agriculture.

Dr. Robert Ellwood, assistant professor of the teaching of social science, and his class visited the State Penitentiary at Joliet November 1.

On November 3, Clarence Orr, associate professor of social science, talked to the Rural Teachers' Study Group of Paxton about the "Importance of Rural Teachers Remaining at Their Task."

Dr. Stanley Marzolf, assistant professor of psychology, addressed the Bloomington Big Brothers on December 1 on the subject "Backgrounds of Delinquency." He reviewed Helen Benton Pryor's book, *As the Child Grows,* in *The School Executive* for October.

Miss Alice Ogle, assistant professor of art, spoke to the Religious Education Group of the Presbyterian Church on November 1 on the topic "Source Materials for Primary Teachers."

Miss Huberta Clemans, assistant professor and supervising teacher in the sixth grade, who is attending Columbia Teachers' College this year, has been elected president of the teachers' education group there. Harlan W. Peithman, assistant professor of music, who is also attending Columbia Teachers' College, has been elected president of the music education group.

Miss Neva McDavitt, assistant professor of geography, attended the annual fall conference for the southern Illinois area for College YW and YMCA groups on November 5 and 6.

L. W. Hacker, associate professor of education, spoke to the State Rural Education Committee on the topic "The State Course of Study-Curriculum" on December 11.

The Library in the College

ELEANOR WEIR WELCH*

Since there have been colleges, there have been college libraries. At times such libraries have been little more than collections of textbooks; at times they have been accumulations of rare books or museum items showing obsolete and outdated titles; and at other times they have been aggregations of research material used almost completely by the faculty or a few trusted research students. The excellency of the library depended on whether or not the books were there. Witness the old story of the Harvard librarian crossing the Yard with a pleased smile on his face for, as soon as he returned with the two books Agassiz had out, all his wares would be safe under his own roof.

Until as late as the 80's, the college libraries were open but a few hours a week, from three hours on Saturday morning when its use would not interfere with college classes to twenty hours a week. The library was an unused store house of print tucked away in the basement in a room too dark for a classroom or up three steep flights of stairs on the top floor of the recitation hall. Hence, the student owned his own library. His use of books beyond his required text depended on the size of his purse.

Today the situation is reversed. Few students own libraries of their own; all use the college library. Frequently, is it the best building on the campus, located within easy range of all recitation halls and dormitories, well lighted and comfortable, in order to encourage reading even among the most non-bookish students.

Never has there been such general questioning of the value of the college itself as in the last four years. Its effectiveness and purposes are written about in lay periodicals and newspapers, as well as in the professional educational press. Some extreme critics go so far as to lay the present world melee to the haphazard aims and poor ideals of the schools of the world. Hence, the function of the college is being examined by the professional and non-professional alike. Its curricula are being reorganized; its teaching techniques, studied; its place in society, weighed.

What is the place of the library in this college? Has its traditional place been changed or modified? Does the philosophy of the college allow the continuance of the general cultural aims of the library or should it become altogether vocationalized? The president of the college and the library staff must study the place of the college library in the complete college picture. It is not an end in itself. It has its existence only as a part of the college. It must do its share in carrying out the purpose for which the college exists.

* Associate Professor and Head Librarian

What are the duties of the college library today? It must continue its age-old duty to acquire and conserve the materials essential to the extension of knowledge in the fields of the college's interest. It must have the books and periodicals and pamphlets necessary to supplement adequately the classroom. It must have the wherewithal to help the teacher introduce the student to the world of books and ideas. Though it will have some research material for the faculty members and the advanced student, the main part of its holdings must, unlike that of the University, be of use to the average undergraduate and related to his curriculum. It will have some beautiful editions—hopefully a few collector's items as specimens to quicken student's interest in printing and fine books and to satisfy his appreciation once it is awakened. But on the whole, it must be a good collection of secondary sources, of the more cultural books to show the unity of scholarship and of the vital books of present day thought.

Today such items are not limited to the customary book and pamphlet. The collection has a well-balanced selection of both silent and talking films; it has phonograph records of music, of literature, and of current political speeches. It has, above all, books and manuscripts on film. Through the use of microfilm and individual reading machines, the whole world of print and writing are available to the humblest college student or the most scholarly faculty member in his own library at one and one-half cents a page.

In addition, the college library should collect material related to the region the college serves—material pertinent to the natural, industrial, economic, educational, and social resources of its own region. Especially is this true of the college training teachers, who will work relatively near their alma mater. To meet this need, Milner Library has the source materials of the "Illinois Economic Survey," collected by W.P.A. workers in 1937-40. It is endeavoring to acquire all types of material important to the study of Illinois so that its students may be aware of the riches of their own state.

A library of such a type cannot be built by the library staff alone. Faculty cooperation is essential to intelligent book selection. During the past year, staff meetings of the various departments were held in the library to discuss recent purchases in the fields of department interest and policies for future buying. Then, too, various faculty members have evaluated the library holdings in terms of individual course needs with suggestions for strenghtening weak spots or continuing or changing present buying policies. In such a way, a usable, active collection can be built.

The Library must always have the bibliographic apparatus necessary for study and for helping to supplement its own holdings. It must have available such titles at the Union list of Serials, the printed Library of Congress catalog, the Document and Monthly catalog of government publications. Its books must be logically shelved.

It must have a catalog that indexes its holdings easily and, at the same time, with bibliographic accuracy. It must have a simple circulation system to get all its resources to the knowledge of its student body and into their hands for reading.

These are the older accepted purposes of the college library. It must do more. It must not only collect and organize the books owned by the college; it must also help to promote their use. It must contribute to that love of books and reading that is the foundation of true learning. The use of the library depends largely on the attitude of the faculty toward the world of books, and their ability to give to students the spirit of investigation essential to learning and true education. The Library staff must help in encouraging students to feel at home in the atmosphere of books. They must be aware of the teaching techniques of various faculty members and their interests. They must know the students and their interests. They must constantly introduce the student to the library from Freshman week until graduation. The library and its use must be recognized as essential not only to get a degree, but to get an education.

Few books are aggressive and few demand attention of themselves. The work of the library is to push them forward so that "the library becomes a teacher without a classroom or text but in a world of books." The staff must be counsellors, supplementing the classroom and the faculty.

A teachers' college exists to prepare students to go out into the elementary and high schools of the state as teachers. Thus the library must do its part in training these future teachers. To that end, it must have competently organized, well managed, well stocked training school libraries, where practice teachers may see school libraries at work with children. It must give these future teachers a knowledge of the place the school library holds in educational philosophy. It must even fit students to serve as teacher-librarians in the small elementary and high schools of the state. The Library staff must even offer courses in library work. It must try to teach the prospective teacher, through classroom instruction, "to use books, read books, love books, and make books a part of his life."

In the following pages an attempt is made to show how Milner Library endeavors to integrate the use of books with the classroom and how it attempts to help books compete with the movies, sports, or an out-of-town weekend in the life of students of Illinois State Normal University.

A Day With the Cataloguer

GENEVIEVE ANNA POHLE*

Does the librarian who is both cataloguer and classifier sit in her office all day like an ostrich who sticks her head in the sand? What are the duties of this person whom you see always busy looking at cards in the card catalogue in the Loan Room or searching for some information in the guides in the Reference oRom or in the Bibliography Room?

It might be informative to follow a day with the cataloguer of Illinois State Normal University at eight o'clock in the morning. The door opens into a large, airy, modern office, facing the south. The shelves along the walls are filled with books—books of all sizes with colorful jackets. The cataloguer will tell the observer that the faculty have requested these books, and the head of each department has sent the list of desired new books to the head librarian. The head librarian has verified the titles by means of bibliographies of various types, secured an estimate of the cost, examined the catalogue and the order file to insure against duplication, taken care of all the information that is needed on the order slip, and sent in the order itself.

When the books arrive at the library some weeks later, the librarian checks them with the bill; in addition, as may be seen inside this book here on the second page, she writes the date when the book was received, the cost, and the jobber.

The cataloguer now removes the order slips and arranges them by date; then she proceeds to the Bibliography Room where she will find in the *United States Catalogue* the Library of Congress number for each book. This list is sent then to the Library of Congress Card Division, Washington, D.C. In about ten days, the cards will arrive. The student assistant in the cataloguing department checks to see that these unit cards match the books and, after checking, leaves them in the books. Any changes to be made on the cards will be handled later by the cataloguer.

The cataloguer now begins to catalogue a shelf of books with Library of Congress cards already in them. Since these cards cannot be obtained for all books, the handling of such books will be explained later. Now the cataloguer may be seen with her head stuck not in the sand but in a book for hours. An ostrich? Almost. The first step in the operation is comparing the books with the card catalogue and noting whether it is already in the library or whether, for instance, it is a variant edition of an item already in the library, or whether it is not in the library in any form. The head librarian had checked for this fact, but the book is in the cataloguer's hand and she, too, must make sure of the

* Assistant Librarian

library's holdings. She records on the order slip the form of the author's name if it has been established and is different from the one on the Library of Congress card. Duplicates and variants are segregated. The marks indicating the collection to which a book may belong, as R for Reference, X for Training School, and XX for High School, are noted on the order slip. Fiction is separated from non-fiction since fiction calls for the simplest form of cataloguing. It is given no class number. In cataloguing, the cataloguer needs only the author and title cards. A few fiction books will be benefitted by a subject card,* *e.g.*, "Signed with their honor," by James Aldrich should have a subject card, World War, 1939 —Fiction.

The work of perforating the books on the title page and pages 18, 90, and 240 with the name and location of the library is left to the student assistant.

The steps for getting the books on the shelves involves some way of marking the books so that three purposes may be served:

1. They will automatically fall in their proper places.
2. The logical order of subjects will be preserved.
3. Individual books may be located.

The ten classes into which the Dewey Decimal system divides all knowledge are:

000—General works
100—Philosophy
200—Religion
300—Sociology
400—Philology
500—Pure science
600—Useful arts. Applied science.
700—Fine arts
800—Literature
900—History. Biography

From this scheme, the classifier determines the place of each book in the Dewey classification system. If a series is to be catalogued, such as Chronicles of America or The English Men of Letters, she designates whether is it to be kept together or separated, and each volume classified separately. To determine the class number is often a lengthy and difficult process. For instance, the title is *Raymond Poincare and the French Presidency* by Gordon Wright. Is this a biography book? Or is it history? The classifier dives into the preface or introduction. She finds no real clues to the contents of the book. She begins reading the first chapter. This book is really fascinating reading. History? It seems to be but she should read a few more pages to be sure. Now she is really buried in the sand. An hour? Can she have spent an hour in her attempt to find the best classification number for this book? The class number decided upon is written on the order slip. The books are now grouped by subject, Religion, Literature, or History, but there is yet no secondary arrangement under the subject by which an individual book can be identified.

The Cutter-Sanborn numbers—book number tables or author tables, as they are frequently called—are used below the Dewey number to aid in arranging

the books on the shelves. The tables cover all letters of the alphabet, the vowels and consonants being given in different groups. The Cutter number is taken from the main author entry, the author's last name. Then the first word of the title, not an article, is added to the Cutter book number. This Cutter number added to the class Dewey number forms the call number of a book.

The classifier then goes to the safe where the shelf card or record of all books in the library is kept on cards. The classifier checks the call number with the shelf card list to see if like books have been classed in the same place and also to make sure that it does not duplicate one already there. The classifier half of the librarian has now completed her work and the cataloguer half starts to work.

The cataloguer proceeds with the process of putting order into a collection of books so that volumes may be located and used for reference and circulation. She had already indicated that classifying makes it possible for the books to be arranged in an orderly manner on the shelves. The cataloguer must supplement that work by listing books in the card catalogue under their author, title, and subjects to provide additional lines of approach for faculty members, staff members, and readers alike.

With the Library of Congress cards on hand, the cataloguer compares the Library of Congress card with the book and if all information matches, the book is ready for the student assistant to go ahead with the accessioning, a record the library keeps of its holdings. This record is typed in a loose leaf book. It calls for brief information about the book—author, title, publisher, date, source, cost, and call number.

The call number must be entered both inside the book and on the spine of the book. The student assistant paints all non-fiction books with black India ink from the botton two inches up the spine and the catalogue prints the call number over the India ink. The catalogue prides herself on this printing. But remember this book will stand forever on the shelves and that printing must be legible for our children's children. The accession number is written at the bottom of the page on the sheet opposite the title page and it is also written on the order slip.

The cataloguer continues with her cataloguing and leaves the typing of pockets and book cards to the student assistant. In a pleasant work room, the student does the perforating and painting of the books. She also pastes the book pockets in the book, shellacs over the book number and revises—that is, she compares the call number and accession number in the book with the call number and accession number on pocket and book card and call number on the book. The book is now ready to be placed on the shelf—a long trail from the day the professor noticed a new title in the publisher's catalogue and decided his students should read it. A long trail, too, from the day the express man unloaded a box of new

books in the Receiving Room in the basement.

If Library of Congress cards cannot be secured for the book, the routine is arduous. The main entry must be determined. The cataloguer must decide how much information about the book must be typed on the card—title, edition, imprint (place, publisher, and date of publication), collation (preliminary leaves, illustrations, tables, diagrams, plans, maps, facsimiles, plates, series notes, in addition to the ordinary information of the number of pages (or volumes), notes of strictly bibliographic nature, and contents (when the title of book is misleading or inaccurate or does not indicate definitely the scope of the book.)

After all the cataloguing has been finished, "Ready for Use" is typed in red on the order slip, which is returned to the Head of the Department who requested the book.

The new shelf cards just made are filed by their call numbers with the others already in the drawers of the safe. All author, title, subject and added entries are arranged in one general alphabetical sequence in the dictionary catalogue. The cataloguer enjoys the hours in the Loan Room, as she files these cards in their proper places.

A statistical record is kept of the number of class numbers assigned, the number of titles catalogued and the number of cards and shelf cards typed. How many books are catalogued in a month? In one month 438 new books traveled in and out of the cataloguer's office. The cataloguer is happy when she sees "her" new books on the shelves, but she heaves a sigh of contentment when she knows the book is ready for anxious faculty members and readers. And here are some more new ones on her office shelves.

Yes, this busy cataloguer and classifier is seldom before the public. But one is not with her very long before he realizes that she feels very deeply that "Books are gates to lands of pleasure" and that "Books are paths that upward lead." And books are her "friends" too. The cataloguer's life with her books is her wonderland in spite of all its troubles and anxieties.

The Loan Room and the Student

GERTRUDE ANDREWS PLOTNICKY*

Recently a very young freshman approached the desk and, with a smile, and I fear misplaced confidence, asked, "Will you please bring me a little book that will tell me how to think things through and arrive at wise decisions?" It is not often that the loan desk has quite so difficult a request as that but it is true that one cannot anticipate what the next request will be. Life is never monotonous there. Sometimes the question arises, "What is the work at the loan desk?" It is varied and covers a multitude of activities.

Its purpose is to put into the student's hands the books that he comes knowing he wants, to suggest other and related titles to him, and to do much to encourage reading by himself at home. The last method is the only one used in later life. Then, there will be little of the gregarious studying of the reserve rooms. Hence, the desk librarian shares with the reference librarian the pleasure of reader's assistant, eager to talk over with the student the book he has just read, wanting to suggest other titles and to introduce him to new fields and new friends in books.

The loan desk is often the first contact the new student or stranger has with the personnel of the library. Since in Milner Library, this desk is located on the second floor at the top of the double staircase, the newcomer generally stops here to present his question. If he cannot find what he wants here, he is directed to the department that can help him solve his problem.

In the same room with the loan desk, the card catalog is built into the walls. This is the usual dictionary type of card catalog, which indexes not only the holdings in Milner Library but also those in the two branch libraries, Metcalf Library and the University High School library. The cards are arranged alphabetically by author, title, and subject. If the book referred to is in Metcalf library there is an X above the call number; if in the University High School Library, that fact is indicated by XX.

Patrons use the card catalog to find the call number of the books they wish, write this on a call slip, and present it at the desk. The attendant goes into the book stacks and brings the book, which is charged and loaned for two weeks. If unable to find the books in the stacks, the attendant looks through the file of books charged out. This is a file of all the books which are charged out of the library and is arranged numerically by call number. By means of this numeric arrangement the attendant may quickly ascertain which books are out and when they are due. If still unable to locate the book, he consults the union file of books in the reserve rooms. This is an arrangement by author of all books

* Assistant Librarian

that are on reserve in the North or South Reserve Rooms. The patron is free to use the book in these rooms but not to take it from the building.

Upon entering the University, each student presents to the loan desk his term fee receipt, which is evidence that he has enrolled in the University and hence is entitled to have a library card. This card is a small piece of heavy cardboard, in which is inserted a small metal slug bearing a number. No library materials are loaned unless this card is presented. When the borrower finds the materials he wishes to use, he presents his library card, which is inserted in an electric charger. The book card is taken from the book and also inserted in the charging machine and the number of the card is printed on the book card. Most of the books are loaned to the student for two weeks and may be renewed for another two weeks. Books are loaned to the faculty for a term, but if needed by the students are called in as soon as the need is felt.

On the charging desk is a tubular visifile, in which are inserted the names of all students owing library fines. The names themselves are typed on narrow strips of cardboard that may be slipped in and out of the visifile quickly. This insures an up-to-date file of all delinquents. No grades are recorded nor transcripts issued to anyone who owes any library fine or who has not returned his library card upon leaving school. In order to differentiate between the past semesters and the current one, two colors of cards are used, orange cards representing past semesters and blue cards the present one.

All books that are returned to any desk in Milner Library are deposited on a truck by means of a slot in the charging desks. These trucks have depressible tops which lower with the weight of the books as they are put in the truck. When one truck is filled, another is slipped into place, and, when the attendants have time, the books are carded and returned to the shelves where they are ready to be circulated again.

A great deal of the work at the loan desk is done by student assistants. As an aid in speeding the work and giving quicker service to the students, an elevator has been installed in the stacks. There is also an electric book lift. In rush times when the work demands it, a student is put on duty on the lower floors of the stacks and the call slips are sent him through pneumatic tubes. The books are found and sent to the loan desk floor by means of the electric book lift.

The book stacks are closed to students in general; however, when a student needs to use the books directly from the shelves, permission is given and he is free to go into the stacks, and use an adjacent carrell if he so desires.

It is impossible ever to measure the usefulness of a college library. The results are too intangible to be determined by any kind of measuring stick. It is true that most libraries keep various kinds of statistics and usually make some good use of them; however, conditions vary to such an extent in dif-

ferent libraries and the same statistics are arrived at under such different conditions that they are of little value for purposes of comparison.

Some students read only what is required, whether it be from their textbooks or collateral reading; others read very thoroughly everything suggested by their instructors or in bibliographies. The wisest students learn to choose the best their courses offer and also to find time to do much related and recreational reading and thus to establish habits which will stay with them during their life time and pay high dividends.

Help for the Asking

CLARA LOUISE GUTHRIE*

Across the front of Milner Library on the second floor is the main reading room. It is a delightful room with vaulted ceiling, tall windows with draperies of green damask touched with gold and coral, coral leather-backed chairs, walls lined with books and above the books Georgian panels of soft green. At each end of the room is a clock set in the delicate tracery of the ribbon and wreath. To this room students and faculty come to find answers to their questions, to secure help in finding material for term papers, talks and reports, to study or perhaps just to browse among the current periodicals. Two hundred and ninety persons can be seated in the room.

Around the walls in the north half of the room are shelved the reference collection of more than six hundred titles and the current periodicals. In the south half of the room are found bound volumes of periodicals for the past twenty years, older volumes being kept in the stacks. Behind the reference desk one finds a small collection of the most commonly used reference books and the back numbers of the periodicals which have not yet been bound.

The reference desk in the main reading room serves as the library's information bureau. Here the librarian gives to students informal and sympathetic aid in interpreting the library's collections for study and research. The librarian does not know all subjects thoroughly but she does know the bibliographic technics of using books in all fields. Since occupying the new building the librarians in attendance at the reference desk have kept a record of the many and varied requests, together with a record of the sources in which the desired information was found, for reference questions have a way of recurring year after year. In reading through this list of requests, one notes that many are requests for facts—statistics, dates, names, biographical information. How many Swedish foreign born are there in Illinois? What are the area and depth of the various oceans? Who are the majority and minority leaders in the United States Senate? How many trailers are there in the United States? What are the eight points of the Atlantic Charter? What was the slave population of Virginia from 1790 to the Civil War? What is the arrangement of instruments in the symphony orchestra? On what date was the first stunt show given at Illinois State Normal University? What is the law regarding marriage licenses in North Carolina? Where can I find something about Sir Stafford Cripps? What are the rules for displaying the flag? What is the title of Joseph E. Grew's latest book? These are typical requests for facts.

Another type of frequent request is

* Instructor and Assistant Librarian

for material to aid in giving reports and writing term papers. Where can I find material on the mound builders in Illinois? What was the influence of the World's Columbian Exposition of 1893 on art? I should like a summary of events leading up to our war with Japan. Something about the history of the Chicago *Daily News,* material on the Federal Bureau of Investigation, material on the ancient cities of Cairo and Alexandria so recently in the news are among this type of request.

The reference librarians are frequently called upon to render a third type of service which might be called "advisory." Sometimes it is for help in selecting recreational and cultural reading in the Browsing Room. At other times it is to make a specific suggestion which will direct the individual. This type is illustrated by a recent request from a member of the V-12 unit who came to the desk and said that he had to make an eight-minute speech on "something current and interesting" and he was unable to select a topic. Could the librarian help him? The suggestion was made that perhaps the new drug penicillin would be a good subject, together with a suggestion as to where to look for material. He went happily away to spend the rest of the evening using the *Reader's Guide* and consulting the periodicals for material for his talk.

Then, too, there are requests from students for information which they need in carrying on other activities quite apart from their class work. Recently a girl came to the reference desk and asked for the War Production Board Order L-85, which has to do with the regulations for making women's clothing. She was entering a design in a fashion contest and it was necessary for her design to conform to government specifications.

In addition to answering questions, the reference department has a fourth type of request, usually from faculty members. It is for special bibliographies of material available in the library on a particular topic. A recent request for such a list was from a professor who wanted a list of recent books and periodicals on eugenics. Another such request was from a faculty committee at work on the campus. The reference department also assists faculty members who are engaged in writing books or articles in checking bibliographic information.

Certain other activities which are done for the purpose of rendering more efficient reference service are carried on at this desk. A file of pamphlets is maintained. A short story index which supplements the printed short story index has been made and is kept up to date. A song index, to include the great number of new song books, is now in preparation. A visifile showing the complete periodical holdings of the library was made and occupies a position at the end of the reference desk, where it is consulted countless times each day. In addition to these behind-the-scenes activities, all mail coming to the library is received and checked at the reference desk.

Besides giving service to the student

body of the University and the faculty the reference department is frequently called upon by the librarians of the Metcalf and University High School Libraries to give asistance in answering questions or finding material which they are unable to locate in their more limited collections.

Although the library does not circulate books to individuals not connected with the University, the reference department is always happy to give reference service to the occasional off-campus person who comes to the library and also to answer telephone requests insofar as it is possible.

Group Reading In the Reserve Room

LUCILE ZEDA CROSBY*

The two Reserve Rooms are located on the first floor of the library. They are furnished in dark oak, with tables seating ten students each and individual study tables placed along the end. The chairs are a modified Windsor. Together, the rooms have a seating capacity of three hundred. Each room has its own stack capable of housing six thousand volumes. Books on the arts and humanities are found in the North Reserve Room and those devoted to pure and applied science in the South.

The practice of class reading assignments means that the same pages or chapters are required by the instructor to be read at the same time by all members of a class. Parts of ten to seventy books become the text for the course. It is group search for knowledge. To provide books for such groups is one of the educational responsibilities of the library. To meet this need the reserved book system was devised to increase the mobility and serviceableness of each book during the time of greatest demand. Books are placed on reserve only at the request of faculty members. The books are circulated for two-hour periods during the day, and may be charged out for overnight use half an hour before closing time. This enables many students to use one copy of a particular book during each twenty-four hours.

Some books are kept on reserve for only a few days while they are needed for required reading. Others are reserved indefinitely if the course is taught each term. Every effort is made to keep the reserved book stacks weeded out, and to keep there only what is actually in demand. Dead material is sent back to the main stacks, where it may be circulated for two weeks. Thus the student is given time to read and absorb the book as a whole or in part. This system requires close cooperation between the reserve librarian and classroom teachers.

Records for the reserved books must be simple and accurate so that the assistants at the loan desk or in the Reserve Rooms can tell immediately whether the book is on reserve. Books are charged to the reserve department at the loan desk. In addition, each reserve room has a visifile, with white cards for books in the North and manila cards for books in the South Reserve Room. A master visifile located upstairs at the loan desk has the complete alphabetically arranged record of books in both rooms. By this ingenious card system, even the untrained assistant can tell the location of a book. Blue cards are used to indicate pamphlets.

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* Assistant Librarian

Meeting the Book Publishers

EDNA IRENE KELLEY*

Educators have come to realize how important a place textbooks hold in American education. It has been learned from extensive surveys that in many classrooms the contents as well as the method of procedure was largely determined by the textbook used. This situation was found to be especially true among inexperienced teachers. One way to secure better teaching seemed to be to place better textbooks in the hands of teachers and pupils. As a result there has been great improvement in textbooks in modern times. The books are now attractive and interesting with beautiful illustrations. There are so many books for every subject taught in both elementary and secondary schools, however, that it is difficult to make a choice among them.

Formerly classroom teachers had very little if any opportunity to choose the books they would use. Now, however, in most places the teachers are being asked to help select the books from which they will teach. In some city systems the superintendent selects the textbooks but often he asks the principals to confer with the teachers regarding the choice of books. Then the principals report back to the superintendent. In other school systems, committees of teachers are chosen to examine different books and make recommendations to the superintendent. But when the teachers are without proper standards for evaluating the books, unwise choices are often made.

Because the choice of textbooks is so important and young teachers have no way of learning to evaluate books unless it is part of their professional training, the University opened about seven years ago a Publishers' Exhibit Room or Sample Textbook Library as it was first called.

The administration wrote to eighty well known publishers of textbooks and to a number of music publishers, asking if they would be willing to contribute books for such an exhibit. Most of the publishers were very generous in their response. They requested only that the books should be accessioned and cataloged in regular library form. In order to insure that the books would always be available for examination purposes, the publishers asked that these books should not be circulated or taken out of this special room at any time.

When Milner Library was built, a room on the first floor was alloted to the Publishers' Exhibit. In this room there are tables and chairs to accommodate thirty-two persons at one time and shelving space for at least 12,000 books. At the present time, this room contains 6200 books. These are textbooks or workbooks and manuals for use in elementary and secondary schools

* Assistant Librarian

and comprise all subjects taught on those levels. They range from pre-primers to senior high school literature, and from primary number work to trigonometry. The music collection is especially fine. Approximately one-fifth of the entire exhibit is music. These include books on history and theory of music as well as octavo music, cantatas, operettas, operas, and band and orchestra music.

There are now over one hundred publishing houses represented in the exhibit. The majority of these publishers keep their collections of books up to date by sending new editions as soon as they are published. They usually request that the old editions be withdrawn from the shelves. At the present time, textbooks become obsolete very quickly.

As soon as new books are received they are stamped with the library stamp and gift plate. The name of the company presenting them them is fastened in the front of the book. After the books have been classified by the Dewey decimal system, which places together all the books on a given subject, they are accessioned and shelf-listed. The books are then labeled and placed on the shelf. Temporary author and publisher cards are filed in the catalog but these are later replaced by Library of Congress cards. Publishers' catalogs and descriptive material sent with the books are filed so that they are available for reference use.

The Publishers' Exhibit room serves many purposes. It offers to all our students, who are prospective teachers, an opportunity to become acquainted with the most recent textbook materials in all subject fields on different educational levels and thus enriches their background for teaching. It provides a wealth of materials for purposes of comparison in the methods classes. Each semester many classes as a group spend from one to five hours in this room comparing and evaluating the texts on different subjects. Last year at least forty members of the faculty brought or sent their classes to the Publishers' Exhibit room for this purpose.

This Exhibit also makes accessible a great variety of books by many publishers to administrators and teachers in service who are considering a change of textbooks in their schools. A number of committees from the Bloomington schools and several from nearby towns have spent considerable time examining books on various subjects. In the summer sessions, when most of our students are teachers in service, there are always some who have been instructed by their principals or superintendents to investigate books on certain subjects with the idea of finding a more satisfactory textbook than the one they have been using. The room also affords publishers an opportunity to refer persons in this vicinity to this display of their books and thus reduces the number of sample copies they have to send.

Student teachers use the room constantly to secure material for teaching, such as examples in English, problems in arithmetic and experiments in sci-

ence. Some writers of textbooks have used this exhibit to ascertain what has already been written or their subject and how it has been treated. One student who had secured a very desirable position said he believed the reason he was chosen instead of another man whose qualifications seemed equally as good as his was that he had spent some time examining the books in this collection and was able to answer satisfactorily the superintendent's questions regarding recent books in his field.

Twenty years ago teacher training institutions began organizing curriculum laboratories, or curriculum workshops as they were sometimes called, in order that students and faculty as well as teachers in service might study the construction, organization, and improvement of curriculum materials. These materials included courses of study, textbooks, reference books, educational units, and educational measurements tests.

On this campus, it was not thought necessary to have a separate room for these materials since they were all housed in one building and easily accessible. The entire library was a curriculum laboratory. However, because the textbooks and educational units units were in the Publishers' Exhibit Room, it was decided last fall at the beginning of the school year to place the educational measurements tests and the new courses of study in this room. The educational tests, of which there are about six hundred, are kept in alphabetical files under the name of the author. A duplicate set of catalog cards has been made for the catalog in the Publishers' Exhibit Room.

New state, city, and county courses of study have been purchased for the Library this year. As they are received they are classified, cataloged, and housed in this room. A selected collection is here for the use of those making new curricula or studying the underlying principles of curriculum building. They can be used with the textbooks, workbooks, tests, pamphlets, and all the other necessary tools.

Recreational Reading

MARGARET LAURENCE*

The primary function of the college library is, of course, to facilitate the instructional program of the college. That is, it provides and maintains a collection of books which will aid the faculty in their teaching. Such a collection will offer two-fold aid: first, collateral reading for students in connection with their courses; and second, materials—books, periodicals, pamphlets—in all the subjects of study with which the college is concerned, materials that may be used for reference by both the faculty member and the inquiring student. In this function, the library is the servant of the teaching staff.

But the modern college library has become something more than a mere adjunct to the curricular program. It is, in a sense, an educational institution in itself. It contributes directly, just as the teaching staff does, to the education (as distinct from instruction) of the college student. The college library performs this separate educational function through the encouragement of extracurricular or recreational reading—that is, reading apart from that required, assigned, or suggested for specific courses. The materials for such reading are not, of course, set off in a sort of vacuum. Books that are required for one course of study may be, and often are, read quite freely by other students for recreation. The reports of our journalists from the world's battlefronts, for example, of our diplomats from foreign capitals, or of our statesmen from Washington are natural collateral assignments to classes in contemporary history, economics, and political science. But they are also essential reading for any thinking adult. In order to stimulate intellectual curiosity, then, to further knowledge, and to broaden vision—in short, to educate—the modern college library provides for the college student a collection of the good books of the present and the great books of the past, and the modern college librarian makes that collection as accessible and attractive as possible.

Illinois State Normal University recognized the importance of this second function of the college library when Milner Library was planned to include a Browsing Room. It is a fairly large room, opening off the main reading and reference room. It is attractively furnished with comfortable chairs and sofas, small tables and lamps. Here fifteen students may read at one time with no appearance of crowding. Curtains and rug harmonize in color and pattern with the furniture covers, and contrast pleasantly with the light oak woodwork. The walls are lined with bookshelves to a height of five feet so that every book may be easily reached; above, the shelves are paneled with oak. The general effect is restful, easy, quiet,

* Assistant Librarian

but not dull—the soft colors in the room itself and the rich colors of the rows of books make it inviting.

It is inviting in another way, perhaps, because it is supervised only from the large reference room. The door between the rooms is open at all times, of course; faculty members read there as well as students; and librarians are in and out as their duties demand. But there is an atmosphere of freedom. The student is free to browse here and there, to pick up and put down, to read for hours in the room, or to check out anything he wishes for the usual two-week period. An assistant at the door of the reference room charges the books.

The room was designed and shelves were provided for 2500 books. The first collection comprised some 1300 titles, roughly two-thirds fiction and one-third non-fiction. It has grown to 1800 titles, and the division is almost half and half. Fiction and non-fiction are interspersed on the shelves by an alphabetical arrangement of authors, or of subjects in the case of biography.

The Browsing Room collection is not permanent. Of the 1300 books on the shelves when the room was opened for use, 300 were withdrawn at the end of two years: they had circulated little or not at all, or they were out of date. For example, Mussolini was a figure of some moment in 1940; in 1942, few readers were interested in him! More than half that first collection was drawn from the library's own holdings. We searched the stacks for books on all subjects. Our criterion for these was only that the books be readable: the style easy rather than hard going; neither dull nor pedantic; the book light in weight, the type clear and not too small, the binding attractive. We purchased attractive editions of the classics, both fiction and non-fiction, and we have continued to add to these books as publishers have made them available. And we bought many books that seemed to be of general interest. Since that initial purchase, we have bought a few books every year especially for the Browsing Room. Such special purchase does not mean, of course, that the books are of small value. It means only that they would be lost among the thousands of books in the stacks accessible through the card catalogue alone. Shelved in a room open to the public they are used and enjoyed.

And they *are* used and enjoyed. The weekly reading of the shelves whereby the orderly arrangement is restored reveals a beautiful confusion—beautiful, that is, to the librarian, who would like to have practically all the books in circulation practically all the time! Circulation statistics show that each semester about one book for each student enrolled has been checked out by students to be read at home. But that figure does not begin to indicate the use of the room. Students are there every hour the library is open. They read Browsing Room books or magazines and newspapers, which they find shelved just outside the door in the reference room. That arrangement—and it was deliberate, of course—has simplified our administrative problems consid-

erably. eW do not need to decide what magazines and newspapers must be a part of the Browsing Room collection, and whether or not they must be duplicated elsewhere in the library; and we do not need to make room for them in our limited space. On occasion there has been no room for would-be browsers, and they have had to bring their books out into the reference room. But as a general rule, any student who wants to read can find a good book and a comfortable chair in the browsing room.

Milner Library, then, through its Browsing Room, makes books of general interest on all subjects easily available to students at Illinois State Normal University. But the library attempts to encourage extra-curricular reading by other means as well. Book-jackets are displayed on a bulletin board between the loan desk and the reference room. No student can come up the stairs to consult the card catalogue, to check out a book from the stacks, to read or study in the reference room, or to listen to music in the Carnegie room, without passing that bulletin board. The display draws attention: it is colorful, and it is frequently changed, for invariably within twenty-four hours each book advertised has been taken out by some library user. In addition, groups of books on timely subjects are displayed on the desk at the door of the reference room. "Latin America," "China," "World at War," "Music," "Recent Poetry," "New Plays," and the frequent "New Books" are labels that have been used lately. These displays are changed weekly. And no book is displayed here, no book jacket is posted, unless the book is available for immediate circulation to students.

Until the V-12 Navy probram took over the dormitories, small libraries were kept in each on the theory that a student will pick up a book in the lounge and browse for half an hour where he would not bother to go to the library for the book. Once interested, the student would read the book in his room. The theory worked as evidenced by the wear upon the books in these deposits since no circulation figures were kept. The collections had a core of quick reference tools as the *United States Statistical Abstract,* the *World Almanac,* an unabridged dictionary, an encyclopedia, as well as German, French, and Spanish dictionaries. Other books were of general interest and varied appeal, classics, new fiction, and outstanding non-fiction best sellers. The same criteria of choice were used here as in the Browsing Room collection. They were not chosen because of their curricular usefulness but because they were titles of interest to adults in the 1940's. When the dormitories go back to general student use, dormitory libraries will be reestablished.

Last year the library initiated a series of talks on books and reading held on Sunday afternoon in the Browsing Room. At each one, a member of the faculty talked about the books in which he was most interested or reviewed a book he had enjoyed. Subjects were widely varied—from American war

correspondents to the Bible as literature, from William Saroyan to an hour of poetry read by a sociologist. The talks were attended by faculty members, students, and townspeople. Sometimes only a dozen or so extra chairs were needed, but on several occasions more than sixty people were crowded into, and just outside, the room.

This year the library is presenting a series of radio broadcasts urging purposeful reading. Books on a subject of general and timely interest are reviewed each week. These subjects, too, are varied—from rivers of Illinois to war in the air, from China to Thomas Jefferson. We have had no way of judging their effect. We do not know who has listened or how much reading has been stimulated.

By these means Milner Library has tried to encourage recreational reading. We know that they are not enough, that we do not reach all the student body. And we know that one instructor enthusiastic about books and reading has more effect than any library display. But we have a collection of good, readable books on all subjects accessible to all students. Through them any student may satisfy his intellectual curiosity, further his knowledge, and broaden his vision.

Look and Learn

GERTRUDE ANDREWS PLOTNICKY*

Recent years have brought about the development and increased use of various types of audio-visual aids to education, and as a result many libraries are finding themselves with new departments and new materials to work with. This situation is not so startling as at first it seems. By training and experience, librarians are accustomed to bringing together books and people. By applying the same priciples, one can easily acquire the technique of bringing together visual aids and classes.

Visual education is of course as old as education itself and, from the beginning, libraries have built up collections of visual aids of one kind or another, such as picture collections, mineral collections, rocks, ores and textiles. The oldest collection in Milner Library consists of specimens collected by John Wesley Powell on his famous first trip down the Colorado River. This collection is housed in the museum on the lowest floor of the library. In an adjoining room is the Gueffroy collection of dolls, a most noteworthy example of a visual aid to teaching.

Through the silent motion picture, and more recently the sound film, visual education has become a very potent factor in teaching.

The first step in the development of modern audio-visual education at Illinois State Normal University was taken in 1933 when the first moving picture projector and film materials were purchased for classroom use by the physics department. Since that time, there has been a steady growth in the size of the collection, and the rental of films has increased materially.

By the time Milner Library was built in 1940, this new medium of teaching had progressed to such a point that it seemed to demand that provision be made for it in the new building. Consequently, a light-proof room, known as the microphotography room, was built on the ground floor to accommodate classes needing to use film materials. This room is fourteen feet wide by thirty-three feet in length. At the east end, which is the rear of the room, is a fire-proof projection booth four feet square. A ramp slopes from the rear to the front and forms an aisle between the two rows of tablet armed stationary seats. In the front of the room is a slightly raised platform, and to one side of the platform is a lectern for the use of speakers. A wall blackboard is in the center of the front wall and a beaded screen hung above it that covers the blackboard when a film is being shown. There are no outside openings to this room but the air is filtered and heated or cooled as needed to maintain a temperature of 72. Built to accommodate classes, there is seating capacity for fifty-two. Small group meetings

* Assistant Librarian

using film materials are also welcome to use the room.

Until the summer of 1943, the handling of projectors and rental of films was undertaken by the physics department; however, since extra pressure of work falls on that department during these war years, the increased use of film materials under the Navy V-12 program presented a problem that seemed could be met only by moving the materials somewhere. Because the microphotography room was equipped and ready, it was the logical place in which to house the equipment. The responsibility of administering it was assumed by the library staff in September, 1943.

In the present collection are various types of projectors: a 16 mm sound projector, which carries silent films as well; one projector for the use of silent films only; a Tripurpose projector; a Leitz projector; an Ampro projector; and a Reflectoscope. There are several beaded screens, both wall and tripod types.

There is a small but well selected collection of forty sound and silent films, one hundred and fifty film strips, several hundred glass slides and opaques covering a variety of subjects. Great care and discrimination are used in purchasing new films. Only when their use is frequent enough to warrant the expense are they purchased. Otherwise films are rented, and an attempt is made to secure all that are asked for.

When a film is rented, an effort is made to secure the maximum use of it while it is on the campus. To this end, word is sent to all those departments that might be interested in seeing the particular film, and previews are scheduled and as many showings made as seem necessary. It is usually possible to arrange a schedule that will care for all the classes that wish to see the borrowed film.

A recently perfected process of making photographic copies of printed matter or manuscripts, usually 16 mm for books or 35 mm for newspapers, produces a film strip which is called microfilm. A large book can be filmed and stored in a fraction of the space that the original book would consume. This is of special value in the case of newspapers. Ordinary newsprint is of poor quality and can stand but little handling. Because of its size it is difficult to store or, to protect from dust and insects, and yet be available for use. In order to attempt any kind of reference library, the library must have newspaper files, the day-to-day history of the world. This need is met by having newspapers on microfilm. The New York *Times* on film for the years of the first World War take 1⅛ cubic feet, as against 59 cubic feet of space for the original files. Many papers now film their files. Because the New York *Times* is well indexed, Milner Library chose that one. The files start with January 1, 1914, and run until December 31, 1918, covering the first World War; they then run from January 1, 1939, to date.

Film materials, of course, cannot be used as freely as book materials because some kind of projector is needed to

enlarge the film. Milner Lilbrary uses a Recordak machine, which is simple to use and will project any material on 16mm or 35 mm film.

During the last few years, through interlibrary loan, many books and theses on microfilm have been borrowed. A permanent film library of printed material is already started.

At the beginning of the war, when many of the old-world libraries were threatened, original government documents and rare books were put on film, and the original manuscripts stored in underground vaults. The filmed copies, which were printed in duplicates, were stored in various parts of the country. In this way, the world is assured of retaining copies of many books of value which otherwise might be lost when peace comes. Because of present war conditions and the great need of films by the various government agencies, not the least of which is V-mail, the commercial use of microfilm has been somewhat retarded. When the world returns to normalcy, there is every reason to believe that microfilm will present an entirely new future for library reference work. Priceless books can be reproduced at a minimum of expense and can therefore be owned by any library. Vast quantities of materials can be housed in a small space. The research worker who has had to travel far to find his material can use in his own library all that the world offers.

Listen and Learn

MARGARET LAURENCE*

When Milner Library was planned to include a sound-proof music room, Illinois State Normal University acquired a laboratory for experiment with audio-education as well as a library of records. The first and principal collection was the gift of the Carnegie corporation—a phonograph, a thousand records, a catalog of the records, scores for them, and a number of books. The records encompass every variety of music, from the most primitive to the most sophisticated, from the American Indians' drums to Bach's *Mass in B Minor*. There is oriental music and there are German lieder. There are songs of all countries. All sorts of composers are represented; Mozart and Shostakovich, Purcell and Schoenberg, Debussey and Duke Ellington.

The student may find here examples of the music of all times and all places. The history, techniques, and varied forms of music may be studied. Whole symphonies, operas, oratorios, sonatas, and concertos may be heard. Classes in music appreciation, history of music, and psychology of music are in frequent attendance.

The records which the library has added to the first collection have been chiefly literary. Shakespeare is represented by Maurice Evans and Judith Anderson reading from *Macbeth*, by John Gielgud reading selections from many of the plays and poems, and by an album of songs from the plays. There are records of *Beowulf* and Chaucer. Great poets of the past are represented and contemporary poets reading their own verse. The National Council of Teachers of English has sponsored a series of recordings, "The Appreciation of Poetry," together with manuals for teachers. The library has these.

Materials are provided for the student of French, German, or Spanish in the Linguaphone literary courses, which comprise extracts, both prose and poetry, from the great literature of those languages. Nature study classes use the album of bird songs. And the history of our own times is preserved for the future in the great speeches of such men as Franklin D. Roosevelt and Winston Churchill.

The room is available for class use at the request of the instructor, who makes reservations with the reference librarian. Classes in music, literature, and language, of course, are most frequent, but classes in speech, in sociology, and the dance, interested in rhythm, come in occassionally. The general run of students, however, enjoy the Carnegie room in an entirely different way. It is open four hours daily, from three to five in the afternoon and from seven to nine in the evening, to any student who cares to

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* Assistant Librarian

listen. An attendant plays whatever record the student asks to hear. On Saturday and Sunday afternoons the radio is turned on for the broadcasts of opera and symphonic music. And the radio has been used on other occasions—the declaration of war on December 8, 1941, and Madam Chiang's senate address, for example.

More men than women use the room. The enrollment records twice as many women as men; however, the proportion using the room is in normal years reversed—twice as many men as women students. During this year when the men students number but a third of the enrollment, they still predominate in the listening room. Whenever it is open, there are three to fifteen sailors listening to music for they prefer music to the reading of literature.

The Carnegie room is nicely adapted to the enjoyment of music. It is not a classroom, but an attractively decorated, comfortably furnished sitting room. The atmosphere is restful, so much so that some students come in regularly to refresh themselves with an hour of music before they return to their studies. Music has the power to soothe, but it also has the power to educate. The Carnegie room in Milner Library opens to students of Illinois State Normal University one of the great cultural media of our civilization.

Changing Treasures in the Lobby

LUCILE ZEDA CROSBY*

Set in the lobby walls of Milner Library are six large display cases of the most modern and attractive design. These, equipped with adjustable glass shelves, locked, and lighted by indirect lighting, present a very effective means of displaying both the resources of the Library and treasures borrowed elsewhere.

The librarians take turns in arranging exhibits, trying to keep in mind these cardinal principles:

1. Exhibits should be artistic—a joy to the eye.
2. They should be timely.
3. They should have a direct tie-up with books or other library materials.
4. They should be changed often enough so that the spectators to whom they are addressed do not lose interest. (Those at Milner Library are changed monthly.)

Planning and arranging an exhibit often evolve a vast emount of work. After a central idea has been decided upon, suitable materials must be collected from the stacks or borrowed from faculty, students, or friends. Making the labels for the cases may constitute a real task. Every word must be verified because a slight mistake in spelling, a misplaced comma, or an error in stating facts becomes a public affront. Borrowed articles must be handled and returned with utmost care.

During the four years of the library's existence, a wide range of subjects has been displayed. Often the season suggests the general theme to be developed. For example, November inspires an exhibit of children's books, calling attention to the fact that during this month Book Week is celebrated annually throughout the nation.

The History of Children's Book Illustrations is an exhibit easily arranged, for the library owns a special collection bought with this purpose in mind. The books speak for themselves—those dull, drab pictures and moralizing texts of our grandmothers' day—the appealing childlike stories of today and the exquisite illustrations of the Petershams, Marguerite de Angeli, and Kate Seredy, the humor of Robert McCloskey and the strength of James Daugherty—these delight the mind and eye of the twentieth century child.

Another seasonal exhibit is the Christmas one. At this time, the cases are filled with lovely Madonnas. This year a creche was arranged in one. The beautiful scarlet, blues, and gold of the pictures, the lighted Christmas tree in the background, the graceful stairways, and the brilliant lighting make the lobby appear almost like a scene from Fairyland.

A few other examples show some

* Assistant Librarian

of the uses to which the cases have been put:

Story of the prairie. (This was prepared and arranged by a member of the science department.)

After dinner coffee cups. Collecting these is the hobby of several faculty members. Each cup displayed was of a different design or kind of china, as Lowestoft, Sevres, Chelsea, Spode, or Dresden.

Faculty hobbies. These ranged from puzzles to exquisite knitting.

An unusual collection of American stamps.

Publications of the faculty of Illinois State Normal University. These included popular, scholarly and scientific works, textbooks, government bulletins, and workbooks.

One case was devoted to the evolution of a textbook, showing the various steps an author must take before a book is published.

Other exhibits included the history of printing; a remarkable collection of Lincolniana, loaned by a friend of the library; the arts of India; North American shells; the United States Government as a printer; Early American glass; North American Indians; autographs. This year the exhibits have centered around the allied nations, each month being devoted to a different country. Not every exhibit interests all equally, but throughout the year everyone finds one that is of special interest.

Permanent Exhibits

LUCILE ZEDA CROSBY

Most of the ground floor of the Library is given over to exhibit space. The art gallery, located at the extreme southwest corner, is a room about forty feet square with walls and lighting especially designed by the Chicago Art Institute. Here, under the direction of the Art department of Illinois State Normal University, exhibits are ararranged monthly and gallery talks are given.

Another room houses an unusual collection of four hundred dolls and figurines. This collection was started as the hobby of Miss Edna M. Gueffroy, assistant professor of geography, who personally collected many of the dolls in her travels. Others have come as gifts. On October 17, 1940, Miss Gueffroy presented the collection to the University. Artistically arranged in special plate glass and aluminum cases, the dolls are of interest to students of geography, history, dress design, or drama. They are visited each year by people from all over the country and are a constant source of delight to hundreds of children.

The dolls vary greatly in size, type, and materials from which they are constructed. Here is a beautiful Lenci doll made by the famous Madame

Lenci of Torino, Italy. She is clad in a pink organdie frock with the skirt caught by tiny bouquets and ribbons and her flowerlike face is framed by a pink organdie bonnet. Here is an humble robe doll from Gatlinburg, Tennessee, and here the Florida state doll completely fashioned from shells. Chief Two-Guns-White-Calf looks very lifelike as he evokes the Great Spirit. His hands and head are made from dried Washington apple.

The royal family of England is represented by Queen Elizabeth and by George VI dressed as Colonel-in-chief of the Queen's own Cameron Highlanders. Not far away are President and Mrs. Roosevelt. The theatrical world is represented by excellent likenesses of W. C. Fields and Shirley Temple among others.

Here are the dolls of Japanese Boy and Girl Festivals as well as Hindus, Peruvian Indians, and Guatemalan natives. And here is a whole gorgeous Chinese wedding procession. Dozens of perfectly dressed little figures bear musical instruments and lanterns. Eight young stalwarts carry the bridal chair.

The two remaining exhibit rooms are occupied by the museum, whose very interesting history was written by Dr. Blanche McAvoy for the December, 1941, issue of *Teacher Education.* It is enough to repeat here that the beginning of the collection dates back almost to the establishment of the University and that with it are associated such world famous names as those of John Wesley Powell and George Vasey. The biology department has done an excellent piece of work in cleaning and repairing the specimens and arranging them in the plate glass and aluminum dust proof cases. Students of all ages, teachers and visitors from many states drop in to see the famous Powell collection and the collections of seaweeds, shells, and minerals.

Training The School Librarian

MILDRED KERR*

The actual effectiveness of the library in a school, college, or university may be measured by the extent to which its patrons—the students—are able to use its resources independently. To feel at home in the library atmosphere, to be familiar with certain sources of information necessary for the continuance of his daily class work, and to be able to find this information all on his own, gives the student a feeling of personal satisfaction. The ability to carry on independent research is one of the marks of an educated person. Particularly in a teachers college is there a need for the student to have a knowledge of library usage, for we are realizing more and more the need of teaching children and young people how to use the library and our teachers will not be able to do this unless they first learn themselves.

All students who enter Illinois State Normal University as freshmen are given instruction in the use of the library through a series of four lessons given in the classes in English Composition, a required course. The lessons in this unit are directed by some member of the library staff. The aim is to give this work as early in the first semester as possible so that students may apply their knowledge of library usage to other subjects as well as to English. The unit includes: instruction in the use of the card catalog and an explanation of the information contained on a catalog card; the arrangement of books on the shelves; the use of periodical indexes; the use of certain basic reference tools such as dictionaries, encyclopedias, biographical dictionaries, and almanacs, yearbooks. Practice in using these tools is given with each lesson. Finally, students prepare a simple bibliography on some subject, a procedure which gives practice in simple research in the library and in recording bibliographical detail in acceptable form.

Educational trends today are in the direction of breaking down the traditional boundary lines separating subject matter in the curriculum and of integrating all instruction. The school library as a service center can be the greatest integrating force within the curriculum. In order that this agency may serve each department in the curriculum most effectively, it is necessary that every teacher in the school not only be aware of the quality and extent of the book collection but also assume the responsibility of extending its opportunities for service through the careful selection of material.

At Illinois State Normal University through a required course in the department of Education, students have an opportunity to learn of the importance and functions of the library in the public school, something of its

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organization, and what should be the teacher's relationships to the school library. In this unit, prospective teachers study various types of school library organization to see how the library can be adjusted to all forms and methods of teaching. What constitutes adequate financial support for the school library and what is a fair basis for allocation of book funds are also considered as a part of the teacher's background. Another aim in this unit is to acquaint prospective teachers with the standard book selection aids, such as the *Children's Catalog* and the *Standard Catalog for High School Libraries*. The student also comes to know sources of information about new books, such as book reviews found in professional journals, general magazines, the *Book Review Digest* and the *A.L.A. Booklist*. The services of other library agencies, such as the public library and the Extension Division of the State Library are considered as means of supplementing the school library. As it is only through the close cooperation of classroom teachers and the librarian that the library can serve most effectively, specific suggestions are made as to ways in which teachers may aid pupils to use the library by making assignments requiring the use of library material, by making definite and reasonable assignments in so far as the use of library materials is concerned, and by teaching pupils how to use books.

Of course, if the library is to be most effective as the intellectual laboratory in the school, it must be administered by some person who has been specially trained in library techniques. Library administration is as highly specialized as is the teaching of any of the curricular subjects. Full training for school library work usually requires one year in a library school after college graduation. A person so trained has put forth as much in preparation as some one who has a master's degree and should expect the same rank in the public school. However, a great many of the high schools today are not able to employ a fully trained librarian. Instead, one of the classroom teachers is often put in charge of the library. This teacher-librarian needs to have a knowledge of at least the minimum essentials of library organization and administration. In Illinois, the High School Visitor's Office of the State University recommends eight hours of credit in teacher-librarian courses as the minimum preparation of the school librarian. Four three-hour courses are offered at Illinois State Normal University, which are designed to give students preparing to be teacher-librarians the minimum essentials of library science.

The first course, Library Service in the Small School, aims to give a knowledge of the integration of the library with the school program; methods of planning, equipping, and decorating the library; the acquisition of supplies, books, and magazines; essential library records, such as accession record, shelf list, inventory, circulation records, methods of charging books; preparation and care of pamphlets, pictures,

clippings; the preparation of books for use, including their classification by the Dewey Decimal system and simple library cataloging; library advertising by means of posters and exhibits.

A second course, The Library as an Information Center, aims to make students familiar with the reference books needed in a small school library, with magazines and other materials supplementary to the reference collection, emphasizing the ability to select and use these materials. Considerable attention is given to reliable sources of information regarding reference books, selection aids, publishers, editions, series, and book format. Through intensive study and use of the different dictionaries, encyclopedias, indexes, almanacs, atlases, handbooks, and biographical dictionaries which go to make up a basic reference collection, students set up criteria for evaluating these books for purchase and use. Some attention also is given in this course to the ability to teach boys and girls how to use the library.

Another course for teacher-librarians, called Reading Guidance for Adolescents, lays a foundation of interest in and appreciation of books through wide reading of recreational and informational books on the junior and senior high school levels. The reading interests and abilities not only of the average child but also of special types of readers, such as the gifted, retarded or maladjusted child, are considered as the basis for reading guidance. Emphasis is placed on the need for guidance in the magazine reading of adolescents. Students are expected to analyze magazines suitable for the high school. Finally, students compile a list of books to be used with some individual or group, this list to be based on knowledge gained from actual reading of the books themselves and through use of book selection aids, book reviews and annotations.

During the past four years a third of the students in these teacher-librarian classes are majoring in the elementary curriculum. To give these and teachers of elementary school subjects a more thorough background in informal books for the elementary school child, the library will introduce a new course this summer. Here the student will gain a knowledge of the vast field of picture books and informal readers for beginners in school, the nature books, the occupational books, those in social sciences, the biographies, the histories of America and of the countries of the world. In fact, they will examine, read at length, and formulate criteria for judging the values of all the vast number of books outside those of pure literature published for the elementary child.

Milner Library desires to extend and improve library usage not through these formal curricular channels alone. Members of the staff are glad to be of service at any time when students are seeking information or to help teachers in service who may have special problems in regard to the school library.

The Student in the High School Library

LOUISE M. STUBBLEFIELD*

Of the four philosophies of high school library service, which should the High School Library, established in 1943 at Illinois State Normal University, follow? Naturally the library in the University High School would differ from the usual high school library. It would serve not only as a book center for high school students and faculty members but also as an observation and training center for future secondary school teachers. What type of library service should these future teachers be taught to expect? What type would give the pupils the easiest access to knowledge in print, what type would make them turn naturally to books in school and what type would carry over best with the study hall-library combination. In this way, the pupils would have a quiet, attractive room in which to spend the school time not actually used in the class room. At these times, he would be surrounded by books, magazines, newspapers and timely pamphlets—materials to read for pleasure or to read because they give information necessary to his study or because they answer the thousand questions that daily living presents.

School administrators quickly see the advantages this type of library-study hall combination offers—the accessibility of materials for the use of students. On the other hand, they also see the disadvantage of having one person, the librarian, in charge of the library and the study-hall. The librarian soon becomes a clerk checking attendance and keeping discipline, rather than a librarian aiding and directing the students in finding materials and guiding reading tastes. In order to overcome this disadvantage, the University High School Library has been organized with a trained librarian in charge of the library work, together with one faculty member each hour of the school day to to check attendance and to supervise the use of the conference rooms and to take any steps necessary to maintain a study atmosphere. This organization was set up as an experiment. This plan has now been in operation for one year and is proving a success. However, this result could not have been achieved without the excellent cooperation of the high school principal and of the faculty members assigned to the library.

A school library cannot be measured by the efficiency of its technical organization; the true test is the services it offers to the personnel of the entire school. To aid the student teachers in finding library materials, supervising faculty members in cooperation with the librarian, have compiled bibliographies and reading lists for the various

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courses taught. These bibliographies do not, however, answer all of the questions of the student teacher. For example, if a student teacher desires information on the magazines received in the high school library in working out a unit on magazine reading, the librarian arranges a conference. At this conference, she discusses with the student teacher the magazines received, the policy used in selecting the titles, and the use made of them by the high school students. Student teachers often use the library as a laboratory, bringing an entire class to the library where the pupils may use the class hour for research and collecting materials in the preparation of assignments in units and contracts. The librarian, working with the student teacher before the class period, knows what subjects and topics the pupils are studying. In this way, the student spends his time more profitably in the library because he can be directed to the sources which will give him the most information.

Above all, the student teacher learns the books of interest to high school pupils through actual observation. He learns in his daily teaching to depend not on the text alone but on the many books the high school library offers and the other thousands that may be transferred temporarily from Milner Library for his pupils' use. He learns how to catch a point of interest in the backward pupil and to expand this interest through reading. He learns how to hold and advance the taste of the accelerated pupil. He leaves his period of practice teaching with a knowledge of books and a dependence on all the material that libraries can offer.

If one is to see the complete picture of the training school library, one must also consider the services to the high school students for it is a high school library. The library offers them guidance in finding the most useful materials in the daily preparation of their assignments. Many of the questions which the students ask the librarian, are not assigned but come from the pupil's own curiosity and interest. For example, one freshman student, on hearing that Niagara Falls was gradually receding, wanted to know how far the Falls had receded in the last one hundred years. One of the senior boys wanted all the information the library had on the Massachusetts Institute of Technology because he was soon to be stationed there in the Navy V-12 program.

The University High School Library also offers recreational reading material for the special interests of students. The pupils are encouraged to read books for pure enjoyment, guidance being given in selecting books which will be of interest to them but which will also be on their reading level. The freshman student who is a slow reader but who wants a good, exciting historical novel, will be shown such books as Coatsworth's *Here I Stay* or White's *Daniel Boone, Wilderness Scout,* and a junior student who has the same interest but who has exceptional reading skill will be directed to such titles as

Young Ames by Edmonds or *Jennifer* by Whitney.

For the first time this year, the library is keeping a reading record of each high school student, not on a competitive basis, but rather as an aid to the faculty, student teachers, and librarian to determine what books the individual students are reading. What are their interests? Does their reading follow the courses that they are studying? Do they read only the requirements of lesson getting or do they find for themselves books that continue the interests aroused by the lesson assignment? Are they really interested in subjects never referred to by class assignments? Does their reading parallel their ability? Is their reading confined to only one type of book? Is it always fiction, or air planes, or snakes, or poetry or do they show interest in many things? Above all, does it show growth in reading ability and in interest? These are some of the questions this record will answer, and, by these answers, teachers and librarians can better understand and guide the individual student. After consulting the reading record, the biology teacher, for example, will find it easy to direct a student to an animal book which will be on his reading level and at the same time will be enjoyed by the pupil. On the other hand the librarian will be better able to build an interesting, mobile collection.

In order to help the pupils use the library as effectively as possible, the librarian teaches the proper use of the library. Since approximately fifty per cent of the entering class of University High School students come from the Metcalf Elementary School and have used the Metcalf Library, the lessons serve as a review for them—a freshening of their interest, together with the learning of some new titles. To the other half of the student body, the lessons offer a new world of books, used as tools of learning. All freshmen, early in the fall, in the English classes, are given introductory lessons on the library. These lessons include the use of the card catalog and the location of books, magazines, and pamphlets in this particular library. Next, magazine indices, the *Abridged Reader's Guide* in particular, are presented as a part of an English grammar unit on the writing of a term paper. The pupils are taught how to interpret the abbreviations used in the *Reader's Guide* and how to locate magazine articles on a particular subject by using the index. The information for the entire paper is collected from magazines found in the high school library. They are also taught through the English classes bibliography making and note taking.

Teaching the use of books is not confined to English classes. In the fall, in United States history classes, there is a lesson on history reference books which will help them in the study of United States history. The students are introduced to such books as the *Dictionary of American History, Social Science Encyclopedia, World Almanac, Statistical Abstract,* Shepherd's *Historical Atlas,* and current bibliographical tools such as *Cur-*

rent Biography, Who's Who, and *Who's Who in America.* All of these lessons are taught in required courses, and thus they reach all students. The material is presented by the librarian in two or three class periods, where the books are thoroughly examined. The students are then given a mimeographed problem sheet on which they answer the problems, using the knowledge they have gained from the examination of the books. The problem sheet is worked out in the library during regular class time under the supervision of the librarian and instructor.

The students at University High School have taken a great interest in the library, one evidence being the formation of a library club. There are approximately thirty members, consisting of both boys and girls from all four classes. The membership has been divided into three groups: staff members, bulletin board committee, and new book committtee. The staff members work at the charging desk, helping in regular library routine. The bulletin board committee has charge of all bulletin boards and exhibits in the library. Some of the exhibits have included a Nativity scene for Christmas and a hobby show of the individual hobbies of the high school students. The main function of the third group, the new book committee, is to get before the student body the contents of new books added to the library. They have used the school newspaper as one channel for advertising new books. For one of its activities, the library club presented a radio program on the University High School Hour, entitled "Knowing Our Allies Through Books."

Upon reviewing the activities and functions of the training school library for high school students, one may readily see the purpose of such a library and the role it plays in the organization of the library system in a teacher training institution. If the program of teacher training is to be a successful one, the training school library must serve as a working laboratory for student teachers, high school students, and faculty members.

Reading in the Children's Library

RUTH ZIMMMERMAN*

For nine years the Metcalf Library served both the Metcalf Training School and the University High School students, but in February, 1943, when books crowded the window ledges and too many students were having to hear, "I'm sorry, there is no room in the library," a library for the University High School was established.

The Metcalf Library, on the third floor of the Metcalf Building, is readily accessible to the four upper grades housed on the same floor. High school traffic on that floor is eliminated since the University High School Library is on the second floor, where it has the advantage of being one flight nearer all high school classes. These two libraries are near enough to facilitate the exchange of books when necessary, but the group which each serves is the better served for having a separate library.

The Metcalf Library, formerly closed to University students during the school day because of the limited seating capacity, now welcomes all persons at any time. It serves all levels in the Teachers College, for the book collection, selected for children, becomes a working laboratory for those who plan to teach, a source of supply for the supervising teacher, and a treasure trove of fun and facts for the children themselves.

Among the University students using the library are students reading for courses in children's literature, those making bibliographies of children's books for methods courses, those selecting books to be used in practice teaching, and at times even those who are seeking material useful in writing papers for University classes. Often a whole class in Education or Observation comes to observe what goes on in the library. Students taking the teacher-librarian courses get first hand experience in either the Metcalf or the University High School Library. The student preparing for the elementary school library field—"may his tribe increase"—comes to the Metcalf Library. Although only ten hours are allotted for this experience, an attempt is made to acquaint the student with a variety of library procedures: charging, discharging, and shelving books, preparing lessons to acquaint the children with library tools, making bibliographies, listening to children's book reports, reading or telling stories to the primary classes, and trying to help answer questions, which run the gamut from "Jack and Jill" to "jet propulsion." In spite of the fact that the elementary librarian's "book knowledge must have a four way stretch," it is imperative that simulated ignorance play a part in her technique. When the occasion demands, she must forget that it was in 1492 that "Columbus sailed the ocean blue" or that the class num-

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ber for airplanes is 629.13. A better memory might impress the child with her encyclopedic knowledge and speed him on his way, but his appreciation of the encyclopedia itself—or perhaps the card catalog—is that which needs to be strengthened.

This matter of building an appreciation for and facility in using library tools is chiefly the responsibility of the library. Space does not permit telling how this problem is met, but, through actual usage, an attempt is made to familiarize every child with the following: the table of contents and index of a book, the card catalog, the arrangement of books by the Dewey Decimal classification, several encyclopedias, the *Readers' Guide*, the *Children's Catalog*, Rue's indexes, and the more common special reference books. Each tool is introduced to the individual student when his problem demands its use, and, to insure that no student is overlooked, each is also introduced to the whole class group in the grade where its need is first apparent.

Familiarizing the child with library tools is only one of the elementary library's responsibilities, and one that comes relatively late in the child's library progress. His first experience with the library comes when he is in the kindergarten. Even at this early age, he learns that both entertainment and information can be found in books. The kindergarten children come to the library in small groups so that they can be given individual help in selecting books to take home. After the librarian tells a bit about the story, some child is likely to say, "I want that book," and before long each has found something that appeals to him. Changing his mind regarding his first choice may sometimes smack of indecision, but it may also be a sign of growth in evaluation. Cooperating parents, who may be asked to read the book over and over again are making a big contribution toward increasing the child's vocabulary. When he returns the book and uses the newly acquired words in telling the story to the group, he really makes those words his. This sharing of stories develops confident speakers as well as good audiences.

Story telling and reading are continued throughout the primary grades although more emphasis is gradually placed on having the child read. Beginning with the second grade, small committees help in finding library materials to enrich group activities. The table of contents is one of the first tools the children use. In these grades the chief library function is to help in developing word recognition and in increasing reading speed and comprehension. In short stories where there is much repetition the child has a framework of familiar words, a framework which holds the story together and helps to give him the feeling that he is really reading. When he reaches that stage, it will not be long until he is reading.

Frequently the assignment of a story to be told to the group is an incentive toward more comprehensive reading. When the child reads the story several times "so that I won't forget it," he is

also fixing new words, which enlarge both his speaking and reading vocabulary. Sometimes after the story has been told, the child is asked to read a certain page to the group. Second and third grade listeners make excellent critics and often realize that the weaknesses they point out are their own. When someone comments, "Johnny pointed to every word, and it sounded jerky," more fingers than Johnny's are put out of sight, and more reading than Johnny's tends toward b e c o m i n g streamlined.

Having a child read a bit from a story well told often uncovers the fact that parents or "our student girl" have been doing most of the reading. A discovery of this sort is followed by the suggestion that Johnny's reading will improve if he does at least fifty percent of the home reading. This place may not be the one for the librarian to inject a word of praise for cooperating parents, but many a Metcalf pupil has been boosted over the hump that lies between the fog of reading and the fun of reading by parental interest, encouragement, and guidance.

Realizing how essential reading is in the educational process today, the home, the classroom and the library work together to encourage and stimulate reading progress and interest. We do all we can to have the child reading easily and with an appreciable amount of satisfaction by the time he finishes the fourth grade. This accomplishment is especially important because with nonreaders above the fourth grade there is an ever-widening gap between their interest and their reading ability.

Once he masters the mechanics of reading, the child senses that his interest is both deepened and widened. One month may find him reading intensively on one subject but the next discovers him sampling at random from any one or all of Dewey's ten divisions of subject matter. Now the problem of the library becomes reading guidance.

To some extent the child's reading is determined by his classroom activities. Keeping informed of the various activities is an important phase of the librarian's work. This awareness is brought about by visits to the class room, by short conferences with the teacher, and by assisting classroom committees and student teachers in finding materials. Here the function of the librarian is to provide material to meet the demands of the various reading levels.

However important assigned and correlated reading may be, it is equally, and perhaps more important that the children establish a taste in reading which is based on personal interests. This kind of reading will continue when school days and assignments are done. Helping to establish this appreciation of books and reading is the library's big job. It is at once a challenge and a privilege. To be familiar with the child's reading background, to be aware of his current interest, and to be alert to his half-felt and half-expressed desires is to make of him a real person. Once he becomes Sammy Burns who sings in the children's choir, who

likes musical biographies but does not care for Kit Carson "because he has the same kinds of fights all the time," and who wants to know all about the navy because his father is a Sea Bee, he is no longer "just one of the fourth graders." Then the librarian's reading diagnosis and prescription are usually accepted, and the result is generally gratifying to both patient and physician.

In suggesting a reading diet, the librarian makes an attempt to find the child's interest level and then to start building at that level no matter where it may be. The Metcalf Library makes no pretense of having books only from recommended lists on its shelves. If it did, there is a likelihood that many would remain on the shelves. Hopefully, most of the recommended books are in the Metcalf collection, but, to an appreciable extent, they are circulating because of stepping stones from lesser lists. Isn't the road from Mickey Mouse to Bambi *via* Happy Jack, the squirrel and Dr. Doolittle a logical one? What of the kinship of Dick Tracy, Ellery Queen, Sherlock Holmes and Poe's Dupin?

It is true that every child has an inalienable right to his literary heritage. We try to preserve that heritage by transferring it in the fullest measure possible. This problem can be met in devious ways—imposed arbitrarily by the teacher or the librarian, linked with classroom or extra-curricular interests, or built on an individual's interest. Certain portions of it are transmitted by the supervising teachers. In the fifth grade the Christmas season would not be complete without the reading of Dickens' *Christmas Carol, The Wind in the Willows* is a sixth grade feature; all the eighth graders meet Jody in *The Yearling.*

Tests given in the fourth grade over a period of years disclosed the fact that fifty percent of the children were scarcely acquainted with the twenty most familiar Mother Goose, with the *Just So Stories,* and with the most universally known folk and fairy tale characters. Aesop and Mowgli make their bows in the intermediate grades. Mythological characters are never omitted when the eighth graders reach the study of the stars.

Bits of literary heritage are often presented in a library period without any attempt to fit them into a current classroom activity. At other times, such an activity opens the way. This year when the third grade was studying domestic animals, Kipling's *The Cat Who Walked by Himself* introduced First Friend, the dog, and First Servant, the horse. This book was followed logically by the *Just So Stories.* Then "Is that true?" or "Is that the way it really happened?" led to the books that contain simple nature and Indian myths. The culmination was the creating and telling of an original myth, "*Why do we have weeping willows?*"

Sometimes it pays to be a "super snooper." A glance over a Cub Scout's shoulder revealed that Sir Baden-Powell, founder of the Boy Scouts, based a whole series of games on the Mowgli stories. As far as boys are

concerned, that glance provided a nearly perfect approach.

Whenever possible we try to establish the feeling that acquaintance with these universal characters and tales helps to make the whole world kin. Jack Bates and Peter Burns of Grundy Center may not be known outside their home community, but Jack Horner and Peter Rabbit are known everywhere. Do we dare admit we do not know them? When a news commentator compares the farm bloc and the anti-farm bloc to the *Cats of Kilkenny,* when Wendell Willkie refers to the *Magic Carpet,* and when political cartoonists find grist for their mill in both Mother Goose and Shakespeare, they must expect us to be an appreciative audience. Can we let them down?

As a purely elementary school library, the Metcalf Library is in its infancy. Its aims, policies and procedures are scarcely more than formulated, but all are based on the firm belief that "reading maketh a full man."

Professional Activities of the Faculty

Floyd T. Goodier, director of integration talked during January to the Parent Teachers' Associations of Stanford and of the Emerson School of Bloomington on the topic "School Legislation in Illinois." On March 9, he spoke to the Parent Teachers' Association of Lincoln on the subject "Discipline in the Home."

Miss Eleanor Welch, head librarian, is the author of an article entitled "Libraries and the Coming of 'Workshops,'" which appeared in *College and Research Libraries* for March 1944.

Dr. Blanche McAvoy, assistant professor of the teaching of biological science, spoke to the science section of the Central Division of the Illinois Education Association, March 6, on the subject "Adjusting High School Biology to the Needs of Pre-Induction Training." Miss Eleanor Flagg, assistant professor of mathematics, tolked to the mathematics section on the topic "Arithmetic in Elementary Education." Dr. Robert Ellwood, assistant professor of the teaching of social science, spoke before the social science section on the subject "Teacher Tackles Social Education." Dr. Herbert Hiett, head of the department of English, was the leader of the English section.

On March 19 Miss Bernice Frey, assistant professor of health and physical education, spoke to the Wesley Foundation on the topic "Why Go to Church?"

Dr. Florence E. Teager, associate professor of English, spoke at a chapter meeting of the P. E. O. on the subject "Russian Literature" on February 18.

Leslie M. Isted, assistant professor of music, served as a judge at the music contest of the Roanoke schools, March 24.

Miss Gertrude Stephens, assistant professor of the teaching of social science, presided over and led a panel discussion before the Metcalf School Parent Teachers' Association, March 30, on the subject "Responsibility of Our Community in the Post War World."

Dr. Lucy Lucile Tasher, associate professor of social science, read selections from Stephen Benet's *Western Star* to the Tau chapter of Delta Kappa Gamma at Lincoln on March 26.

Ralph W. Fogler, assistant professor of physical science, is the author of an article entitled "The Laboratory in the Food Industry," which appeared in the *Science Teacher* for April 1944.

Dr. Harry O. Lathrop, head of the department of geography, is the author of the chapter "The Causes of Con-

flicts Among Nations" in a book entitled *Global Geography,* which has been edited by George Renner. Dr. Lathrop spoke to the Peoria division of the Illinois Education Association on March 10 on the topic "Commerce of South America and the Good Neighbor Policy."

Miss Esther Vinson, associate professor of English, talked to the Danville Education Association, March 20, on the subject "When is a Book Immortal?"

Dr. Helen E. Marshall, associate professor of social science, addressed the Alpha Beta chapter of Delta Kappa Gamma on February 5 on the topic "Contributions of Pioneer Women Teachers in Illinois."

Dr. Robert Ellwood, assistant professor of the teaching of social science, is now serving as consultant for the Springfield school system in their revision of the elementary history program.

Dr. Stanley W. Marzolf, assistant professor of psychology, talked to the McKinley Parent Teachers' Association of El Paso on the topic "Youth Guidance and Mental Health," on March 16.

On March 6, Mrs. Dorothy Brunk, assistant professor of social science, spoke to the Channing Club of the Unitarian Church of Bloomington on the subject "The Church in Foundation—the Council of Nicea."

Dr. M. Regina Connell, assistant professor of foreign languages, attended the Classical Association of the Midwest and South in St. Louis, April 6-7-8.

Miss Frances Conkey, acting director of the division of home economics education, addressed the American Association of University Women of Lincoln on the subject "Democracy in the Home," on January 17.

Wayne F. Sherrard, assistant professor of music, attended the Music Educators' National Convention at St. Louis, where he was member of a panel for discussion of "Post War Military Band Problems."

Joseph Cogdal, associate professor of health and education, attended the high school basketball banquet sponsored by the Kiwanis Club of ElPaso on March 20 and talked to them on the topic "Changes and Trends in Basketball."

Dr. R. W. Fairchild, president of Illinois State Normal University, addressed the American Association of Teacher Colleges' regional meeting at Chicago on March 1. His topic was "The Next Five Years in Teacher Education."

Dr. Chris A. De Young, dean of the University, attended the first meeting of the Public School Study Commission for the state of Illinois in Chicago on March 10. During the past three

months he has addressed organizations at Chicago, Danvers, Metamora, Urbana, El Paso, and Aurora on a variety of subjects.

Miss Marion Miller, instructor in art, spoke to the Bloomington Art Association on January 9 on the topic "Art on the Home Front."

Clarence Orr, associate professor of social science, spoke before the Watseka Women's Club, March 7, on the subject "Duties of a Voter."

Dr. Leslie Holmes, associate professor of geography, is the author of an article entitled "Pre-War Truck Movement of Coal from Illinois Mines," which appeared in the *Journal of Geography* for December, 1943.

Dr. Margaret Cooper, director of the division of elementary education, addresed the Illinois Council of Social Studies at Decatur on March 4 on the topic "Meeting the Needs of Children through the Social Studies."

Dr. C. F. Malmberg, associate professor of psychology, attended the meeting of the Council on Cooperation in Education, as a delegate from the Teachers College Personnel Association, at Cleveland, March 4 and 5. He was elected treasurer and director of the testing program of the Personnel Association for the coming year.

T. J. Douglass, assistant professor of agriculture, spoke before the Regional Garden Meeting of the Bloomington Women's Club on March 28 on the topic "Victory Gardening for 1944.

Miss Mary Buell, assistant professor of home economics, talked to the district meeting of the Home Economics teachers February 12, on the subject "'Wartime Brings New Problems to the Nutritionist."

Dr. F. L. D. Holmes, head of the department of speech, addressed the speech correctionists of the division of services for crippled children on March 24 on the subject of "Social Aujustment."

L. W. Hacker, associate professor af education, had an article entitled "Housing the Rural Teacher" published in the *Illinois Education Association Journal* for December, 1943.

Miss Gladys Tipton, assistant professor spoke to the In and About McLean County Music Club on March 13 on the subject "Music in the Elementary Schools."

Dr. John A. Kinneman, associate professor of social science, reviewed Kimball Young's *Sociologys A Study of Society and Culture* in the December, 1943, issue of *Social Education.*